IN THE HEART OF THE ARCTICS



DR. NICHOLAS SENN


"Knowledge is Power."
EX LIBRIS
MELISS

Digitized by the Internet Archive
in 2007 with funding from
Microsoft Corporation

http://www.archive.org/details/inheartofarctics00sennuoft

IN THE HEART OF THE ARCTICS



PEARY ON THE BRIDGE OF THE "ERIK"

In the Heart of the Arctics

BY

NICHOLAS SENN, M. D., Ph. D., LL. D., C. M.

Professor of Surgery, The University of Chicago; Professor of Military Surgery, Rush Medical College; Surgeon-General of Illinois; Chief of Operating Staff with the Army in the Field during the Spanish-American War



CHICAGO
W. B. CONKEY COMPANY
PUBLISHERS

COPYRIGHT, 1907,
BY
W. B. CONKEY COMPANY

G
606
S4

CONTENTS

	PAGE
In the Heart of the Arctics	13
The Polar Region as a Summer Health Resort for Patients Afflicted with Pulmonary Tuberculosis	19
An Unexpected Opportunity	23
The "Erik"	27
Newfoundland Seal Fishery	31
Off for Greenland	39
A Glimpse of Labrador Life	47
Through Belle Isle Strait	55
From Labrador to Greenland	63
Greenland	75
Along the West Coast of Greenland	89
In North Star Bay	109
The Midnight Sun	123
A Great Inland Ice Cap	129
Life at North Star Bay	133
Short Life of Greenland's Flora	137
Maternal Love of Arctic Animals	139
An Unexpected, Unlooked-for Visitor	143
Arrival of the "Roosevelt"	147
Commander Peary	149
From North Star Bay to Etah	151
How Peary Collected His Eskimos	155
The Walrus	165
Etah	177

CONTENTS

	PAGE
The Smith Sound Eskimos	179
Ten Days at Etah	231
An Eskimo Wedding on Board the "Erik"	255
The "Roosevelt"	259
Departure of the "Roosevelt"	265
A Friendly Contest between the Midnight Sun and the Moon	269
Deception of Distances in the Arctic Region	271
The Flora in the Heart of the Arctics	275
Arctic Woes	279
Approach of Winter	285
Homeward Bound	287
Mental Indigestion	293
Isolation of the Smith Sound Eskimos	299
Omenak Fiord	303
Disco Island	305
Harbor of Godhavn	307
Greenland Ports	317
From Godhavn to St. Johns, Newfoundland	321
From St. Johns to Sydney, Cape Breton	335

LIST OF ILLUSTRATIONS

PAGE

Peary on the Bridge of the "Erik" Frontispiece
Commander Peary on Deck of the "Roosevelt" 259
A Monster Veteran Iceberg 95
Steward of the "Erik" Calling for Dinner 31
The "Erik" at Etah 27
Mates Blanford and Whitten, Engineers Maher and Knight of the "Erik" 29
Hunting Seal on Land Ice 33
A Breathing Hole in the Ice for the Seal 35
Sealing Crew on Ice Field 37
Musk-Ox of North Greenland 39
My-a, the Adonis of the Tribe 193
Tung-we, the Tallest Man of the Tribe 195
Moonlight Glimpse of Labrador Coast 47
Hopedale—Labrador Whaling Station 49
A Veteran Whaling Crew 53
Bird Cliff, Saunders Island 167
Half of the Bag 175
Ballaena, Labrador 63
The Noble Game of Greenland 75
Heilprin Glacier in Inglefield Gulf 153
Hauling a Dead Polar on Deck 93
One of the Tents of Little Omenak 101
The Face of Petowik Glacier—Nunataks in the Rear ... 105
Old Igloos, North Star Bay 109
Greenland Inland Fresh Water Lakes 111

LIST OF ILLUSTRATIONS

	PAGE
Tupik (Tent) and Eskimo Children	115
Two Interiors of Tupik—Floor and Bed	117
Eskimo with Woman in Kayak	125
"Jumbo," Wife and Children	127
"Jumbo's" Left Foot	129
Tunneled Iceberg	135
A Flower Patch in the Heart of the Arctics	277
The Yellow Poppy	139
Eskimo Dogs at North Star Bay	133
The "Roosevelt" in Foulke Fiord	147
Commander Peary in Arctic Suit	149
Table Mountain at North Star Bay (Noah's Ark)	103
Three Native Girls	163
Eskimo Women on Board the "Erik"	199
Eskimo Woman with Child in Hood	165
Kud and His Chum	161
Two Whales in Process of Cutting Up	57
Taking Walrus on Board	171
Eskimo Women at Work on Deck of the "Erik"	173
Etah	177
Buriate and Wife	181
Female Form	185
Eskimo Women	197
Eskimo Dog Team	201
Melville Bay—Seal Hunting on Land Ice	207
Iceberg at the Head of Inglefield Gulf	157
Interior of Baffin Land	99
A Civilized Baffin Land Eskimo	227
View in Foulke Fiord	233
Natives, Tents and Dogs	119
An Eskimo Belle	189

LIST OF ILLUSTRATIONS

	PAGE
Landing Dogs at Etah	243
Auk Rookeries in Foulke Fiord	247
Cleaning Up an Ice Pan	43
A Wedding on Board the "Erik"	255
Captain Bartlett of the "Roosevelt"	261
The "Roosevelt" Leaving Etah for the Farthest North	265
One of the Finest Icebergs Encountered by the Party	267
A Twin Iceberg	271
Southern Shore, Inglefield Gulf	155
First Cliff beyond North Star Bay	303
Southern Shore Omenak Fiord	297
Civilized Eskimos of Godhavn	311
A Monster Iceberg in Disco Bay	305
Godhavn	309
Igloo at Little Omenak and Native Women	107
Church at Godhavn	315
Blue Fox at Dusk	151
Eskimo Dogs	113
A View of Baffin Land	97

IN THE HEART OF THE ARCTICS

"Speed the soft intercourse from soul to soul,
And waft a sigh from Indus to the Pole."
—*Pope.*

We who were born and raised in the temperate zone, and have spent much of our lifetime in lands of varied seasons, have naturally a strong desire to know and see how the people live in the two climatic extremes—in the neighborhood of the equator and the poles. From our earliest childhood days, we have the most vivid and pleasant recollections of the four seasons of the year—spring, summer, autumn and winter; all of which bring their special delights and attractions with a never-failing regularity.

"Here stood fresh Spring, bound with flowery chaplet; Summer was unclothed, and bore a wheaten garland; Autumn also was there besmeared with trodden grapes; and icy Winter, rough with hoary locks."—*Ovidius.*

Spring reminds us of the time when Nature wakes up from her long winter slumber, rejuvenates

herself in the unfolding buds, expanding leaves and flowers, and sprouting grass under the caressing charms of the approaching sun, and the warm breath of generous warm showers.

> "And now every field is clothed with grass, every tree with leaves; now the woods put forth their blossoms; now the year assumes its gayest attire."—*Virgilius.*

It is the time

> "When Spring unlocks the flowers to paint the laughing soil."—*Heber.*

Spring, the symbol of childhood, of beauty, peace, and happiness, is the season which is looked forward to with impatience; and there is no one, young or old, who, after the long winter, would not join with heart and soul in the pressing invitation:

> "Come, gentle Spring! ethereal mildness! Come."—*Thomson.*

Summer brings the golden harvest and fills the air with the exquisite fragrance of the new-mown hay.

> "Autumn nodding o'er the yellow plain."
> —*Thomson.*

yields its corn and luscious fruits, and Winter puts Nature to sleep under a bed of immaculate snow and invites young and old to invigorating outdoor sport on ice and snow.

The climatic changes in the temperate zones come and go almost imperceptibly, and accomplish their task silently and insidiously. But what a

fascination there is about the going beyond the limits of these temperate, conservative efforts of nature! What an inspiration to go where soil and climate combine to force from the earth nature's grandest and most imposing productions; or to go to the opposite extremes, where her icy hands, stretched from the poles, forbid the approach of man and beast, and lock the door against the intrusion of any kind of vegetation!

For eight consecutive years I have spent much of my vacation time, during mid-summer and mid-winter, in tropic and sub-tropic islands and countries. I have become much enamored of the lofty, feathery palms, the rampant vegetation of the tropics, and the child-like, dusky people inhabiting them. I love the primeval tropic forests and their closely woven, almost impenetrable jungles, teeming with animal life, and have learned to appreciate keenly the delicate fruits of nature's choicest orchards and the balmy air perfumed by the fragrance of myriads of flowers which decorate meadows and foliage.

The visitor from the North revels in the wonderful handiworks of nature, but soon becomes aware by the heat that distresses him and by the insects that torture him by night and by day, that he is in the tropics. It is then that he thinks of a cooler climate and the lines heading this chapter occur to him:

> "Speed the soft intercourse from soul to soul,
> And waft a sigh from Indus to the Pole."

I was made to experience the force and meaning of these lines during the summer of 1904, on my second voyage around the world, when I traveled across India in August and September, two of the hottest months of the year. At Benares, Delhi, Jaipur, and intervening points, the mercury of my thermometer, which registered 132° F. when exposed to the burning rays of the sun, nervously shot up to its maximum limit and had space permitted, I have no doubt it would have climbed up to 140° F. It was then I wafted a longing "sigh from Indus to the pole."

The depressing effects of prolonged, continuous heat engenders an ardent desire for a land where the sun casts his rays more obliquely and with less power on the surface of the earth. Having become somewhat familiar with the tropics, their people, their trees and flowers, their animal life, and the effects of heat on man, beast, and vegetation, an irresistible desire gained possession of me to seek the distant North, where Nature's moods and methods are more stern and where the struggle of life is more exacting and severe. I have had glimpses of the North from different points: at North Cape, Norway, where I was fortunate enough to see the midnight sun in all his glory; in Alaska, the land of forests, fiords and inland seas, the home of the wonderful Muir and Taku glaciers, and the wild untutored Alaska Indians; in Newfoundland, that stern and semi-arctic island, until quite recently the winter home of many of the arctic animals; in Siberia, the land of flowering steppes, mountains,

majestic rivers, strange lakes, and endless moss-grown tundras. But my imagination carried me away beyond these now much frequented places, away beyond the Arctic Circle.

The writings of the most noted arctic explorers, Kane, Nordenskjold, Peary and Nansen, added oil to the fire, and the longing became irresistible. Greenland, the land of glaciers and icy mountains, was my objective point. But how to get there and return within the limits of my allotted vacation time, were matters not easily solved. Fate favored me. When the daily press brought the news that Dr. Frederick Sohon, of Washington, D. C., intended to take a party of consumptives on a cruise along the western coast of Greenland, to give them the benefits of the uncontaminated pure air of the arctic region, I decided to make use of this unusual opportunity to gratify my burning desire to study the climatic conditions within the Arctic Circle, the natives, and the scanty vegetation. I reserved at once a cabin, but unfortunately the plan miscarried, owing to objections made by the Danish government, to the landing of the vessel at any point along the intended route. It is a great pity that Doctor Sohon could not carry out his well matured plans,—to test the curative power of the arctic region in cases of incipient tuberculosis of the lungs and other parts of the body.

THE POLAR REGION AS A SUMMER HEALTH RESORT

FOR PATIENTS AFFLICTED WITH PULMONARY TUBERCULOSIS

Experience, the best and most reliable guide in the practice of the healing art, has demonstrated, most conclusively, that the best results in the treatment of pulmonary tuberculosis are obtained by giving the patients the benefits of outdoor air and a maximum amount of sunlight. These two curative agencies are found in an ideal condition during the summer months, above the Arctic Circle, where the air is absolutely sterile as far as the bacillus of tuberculosis is concerned, and where the short summer is one long day, illuminated by the dazzling rays of the midnight sun, which, in themselves, exercise a curative influence.

The personal experience of Doctor Sohon proves the curative power of the arctic climate on tuberculosis. In speaking of the projected Greenland cruise, he says: "The plan, which has been a dream of mine for many years, and which, through the aid of a number of generous men, will now be put into operation, is the sequel to my own experience in the polar regions. I accompanied Commander Peary in 1897, and was at that time slightly affected by tuberculosis myself. I improved so rapidly, despite the hardships of the journey, and was so vastly

benefited that I was struck with wonder at what the arctic regions could do for persons so affected. Five years afterward, on accompanying the Peary relief expedition, I made an exhaustive study of the subject of the curative properties of the far North for consumptives."

Tubercle bacilli do not necessarily cause a hopeless disease, but it is the resulting mixed infection with pyogenic organisms which occasions danger. The indications in the treatment are to have an environment free from harmful bacteria, and to secure such other favorable conditions as to encourage a restoration of vitality and vigor, by which the disease is arrested and health restored. These conditions are found to perfection in some of the Greenland fiords. The suggestion of their adaptability to this purpose has nothing strange or experimental for its foundation. It offers something easily obtainable and better than we have at present—the highest development of all that has proved beneficial in the rational treatment of tuberculosis. "A summer spent in Omenak Fiord or Inglefield Gulf, where we propose anchoring and biding awhile, would serve to establish a cure, or insure its accomplishment afterward, in nearly all cases not hopelessly advanced. Three consumptives to my knowledge have gone to these places, and in each case the cure was immediate and effectual. Two of them were for three months in the Peary expedition, and the third, a well-advanced case, was for nine months aboard a whaler. Six Eskimos brought to this country soon contracted virulent tuberculosis, four of them quickly suc-

cumbing, one being still under treatment here, while the only one who returned to his native snows, recovered." The climatic conditions in Greenland, above the Arctic Circle, are ideal for this purpose. "The secret of the open open-air treatment for this terrible disease is abundant sunlight and a dry, cold, bracing atmosphere. These three ingredients abound only in the very North during the three months of sunshine."

"Almost to the extreme northern boundary of Greenland, and some degrees above the Arctic Circle, the summer temperature seldom falls below the freezing point, the mercury being generally above in July and August, when it ranges from 35° F. to 45° F. There is no increase of heat during the day and no cooling off during the night, for nights there are none."

Fascinated by these natural curative resources of nature in the polar region, Doctor Sohon decided to make use of them by taking a summer trip along the west coast of Greenland, expecting to spend much of the time in several of the large inland fiords. He had made arrangements to have the steamship "Havana" converted into a hospital-ship with all the comforts and equipments of a modern sanatorium, and intended to make the cruise during the three summer months of perpetual daylight. Sailing along the coast and stopping in the sheltered fiords for several days, would give the patients, besides, the benefits of a frequent change of scenery. The purity of the air, the cool breezes, the constant sunbath and the living on the roof of a floating

hospital in a region where colds are almost unknown, certainly held out much encouragement that his humane undertaking would have proved a great success had the Danish government not put an unexpected stop to his plans. Doctor Sohon is so firmly convinced of the curative power of the arctic climate in the treatment of tuberculosis that he will not leave a stone unturned to make such a cruise next year, if not along the west coast of Greenland, in a region within the Arctic Circle offering similar hygienic advantages.

AN UNEXPECTED OPPORTUNITY

I had set my mind on seeing Greenland this year, and was very much disappointed when I found that Doctor Sohon's plans had miscarried. I could possibly have succeeded in going to Danish Greenland by way of Copenhagen, whence a steamer sails for Greenland three times during the summer season; but I wanted to see that part of Greenland north of the Danish settlements, the heart of the arctics. The only chance left was the Peary expedition. It was through the influence of Dr. Sohon that Commander Peary finally gave his consent for Doctor Sohon and myself to become the only passengers on his supply ship, the "Erik," a courtesy which we keenly appreciated.

I am very fortunate in having for my traveling companion, on this somewhat novel trip, a man like Dr. Sohon, who is quite familiar, by his former experience, with what I expect to see and study. The time will pass more pleasantly and profitably for

> "A pleasant companion causes you not to perceive the length of the journey."—*Publius Syrus.*

As we will be the only passengers on the "Erik," nothing will detract our attention from studying the "Land of the Midnight Sun," its strange people, its scanty vegetation, its wealth of marine animals,

its gigantic ice-cap with its leaders seaward in the form of glaciers. We will see icebergs born, icebergs floating and icebergs stranded, in all stages of disintegration, yielding slowly, but surely, to the gradually increasing heat of the sun and warmth of the water that carries them to destruction. We will be given an opportunity to visit the places made notable by a number of intrepid explorers on their way over the pathless ocean and limitless fields of ice and snow in search of the pole. We will go where

"We learn daylight."—*Shakespeare.*

We will spend most of our time where

"Through the plains, of one continual day,
Six shining months pursue their even way;
And six succeeding, urge their dusky flight,
Obscured with vapors and o'erwhelmed in night."—*Prior.*

We will see the land and sea, where, during the summer, night sets no limit to work; where nature exhibits her strange and mysterious works of art in the magic light of one long, continuous day, and then drapes them with the somber mantle cast over them by the unbroken night of the stern arctic winter of equal duration. For two months I will look upon a new world, a new race, a new flora, a new fauna, where nature wears a new face and will be made to appreciate more than ever the value of travel as a means of education, as

"Nothing has such power to broaden the mind as the ability to investigate systematically and truly all that comes under observation in life."—*Marcus Aurelius.*

There is always a peculiar fascination about the unknown, the strange, the mysterious, and, as a rule,

"Everything unknown is magnified."—*Tacitus.*

To see so much of the wonders within the Arctic Circle as is held out to us by a two-months' cruise of the "Erik" is no small privilege. The "Erik," one of the veterans of the North Pole fleet, has been in the service of Commander Peary during two of his former expeditions, and this time, as before, will penetrate deeply into the frozen zone, the existence of which the ancient classic authors had some knowledge of:

"There is an icy zone on the extreme borders of Scythia, a melancholy waste, barren and treeless; there dwell sluggish, cold, pallid looks, trembling ague, and pining want."—*Ovidius.*

In visiting such an unfrequented region like the Arctic Circle in search of knowledge and recreation, it's doubly important to remember:

"The use of traveling is to regulate the imagination by reality, and, instead of thinking how things may be, to see them as they are."—*Dr. Johnson.*

Inspired with such good intentions, and happy in anticipation of what this vacation had in store for me, I left Chicago, July 3rd, for Sydney, Cape Breton, over the Grand Trunk Railway, making connection with the Intercolonial Railway at Montreal, and arrived at Sydney, *via* Truro at 10:30 P. M., July 6th, interrupting the journey by stopping

over eighteen hours at Montreal. Contrary to my expectations I found the trip over the Intercolonial Railway very comfortable, good service, fine sleepers, and excellent dining cars. The "Erik" was expected to sail from Sydney on the tenth of July, but did not come into this port until the thirteenth. Much had to be done to get her ready for the long voyage to her destination, Etah, Greenland, or possibly Cape Sabine, Ellesmere Land. She came with a ballast of stone, which had to be unloaded, after which six hundred and fifty tons of coal were taken on board, which with sixty-five puncheons of whale meat, constituted her cargo for the present Peary expedition.



THE "ERIK" AT ETAH

THE "ERIK"

The "Erik" is a sealing vessel. She is a staunch, seven hundred ton steam schooner, built in Scotland, forty years ago. She has made many trips in search of seal and whale, and, on two former occasions, was chartered by Commander Peary. This, will, therefore, be her third voyage in the service of this enthusiastic and indefatigable explorer. When she came into the harbor, the first thing that attracted my attention, and marked her as a vessel intended for perilous service, were two immense barrels securely fastened to the fore and aft masts near the very tip of these immense trunks of hardy pine, at least seventy feet above the deck. These are the so-called crows' nests. These lofty lookouts are reached by a rope ladder, and the sailor enters through a hole in the bottom of the barrel, which is closed, after he has entered, by a trap door. Only the head of the watch projects over the rim of the barrel, and from this swaying, dizzy height he scans the vast fields of floating ice for seal and open lanes, locates icebergs, shallow water, and rocks, and sometimes, when the fog is dense on deck, the lookout is above the gray mantle of mist and fog, and their inmate enjoys the sunlight and unobscured vision, and is in a position to point out to the officers on deck a safe course for the ship.

The "Erik" is an old fashioned ship and has no accommodations for passengers, and few conveniences for officers and crew. It is fitted out as an ice-fighter, with a strong, wooden frame work, with an outer cover of square oak planks, more than a foot in thickness. The woodwork is as solid and sound now as it was forty years ago, notwithstanding the hard service to which she has been exposed during that long space of time.

The entire aspect of this veteran vessel does credit to the name she bears, as "Erik the Red" was one of the most daring of seafaring men. Strength, endurance and simplicity are her most conspicuous qualities. Rude and stern in her appearance, she imparts confidence in those who, by choice or necessity, have to depend on her for safety during the long and perilous voyage, deep into and back from the "Heart of the Arctics."

Material repairs were made a number of years ago, but the thirty-seven horse-power engine has been in use for thirty years and remains in excellent working condition today. The master of the ship on this trip is Capt. Job Vine, who, for many years, has served in a similar capacity on sailing vessels, plying between St. Johns, Newfoundland, and Brazilian ports. This voyage proved an unusually trying one to him, as he had never been in the arctic regions and was not familiar with the troublesome currents and the treacherous coast of Greenland, The crew, including the officers, is made up of nineteen men, all of them hardy Newfoundland sailors and experienced sealers and fishermen.



MATES BLANFORD AND WHITTEN—ENGINEERS MAHER AND KNIGHT OF THE "ERIK"

The vessel has just returned from the annual sealing trip off the coasts of Labrador and Newfoundland and in the Gulf of St. Lawrence. The accounts given by the officers of this annual seal-fishery in the early spring may interest the reader, as the information I obtained concerning this industry is from first source, hence reliable.



STEWARD OF THE "ERIK" CALLING FOR DINNER

NEWFOUNDLAND SEAL FISHERY

Newfoundland seal-fishing is comparatively of recent origin and has been a source of a large amount of wealth to the Colony. Cod-fishing has been pursued for nearly four hundred years; seal-fishing commenced as an industry at the beginning of the last century. Rev. M. Harvey, of St. Johns, has made a careful study of this industry, and Levi G. Chase has published a very instructive report on the same subject, and from these sources, I have gleaned much in writing the introduction to this chapter.

Generally the seal-killers forced their way through the ice, by which nature had guarded the helpless baby seals. Few people know that the fur used in making garments is obtained exclusively from the young white seal—the skin being dyed to suit the taste of the customers of this expensive and fashionable article of winter clothing. The once happy breeding places of the mother seals became, now, every spring, a slaughter-house, stained with the blood of their slain infants; and yet they return year after year to witness a repetition of the same cruel scene. Seal-killing (we can not speak of hunting in this connection) commenced by taking the animals in nets which were placed between the shore and some island rock at no great distance. As the animals migrated in fabulous numbers, a

few would become entangled in the nets. The same primitive method is still made use of in some parts of the northern coasts of Newfoundland and Labrador, especially in capturing bay-seal which is non-migratory.

The mother seals not infrequently make their breeding ground on the shore where the young seal are killed with a club and the old ones are shot. In 1894, 120,000 seals, old and young, were killed on shore. At first the seal was hunted only for its fur. Seal-oil was first mentioned as an article of export from Newfoundland in 1749—the value of the yield for that year being estimated at $5,000. With the depreciations in the value of seal-fur and the decrease in the annual yield, the blubber of the seal plays a more important rôle as an article of export.

The next progress in seal-killing was made by fitting out small schooners of from 30 to 50 tons, manned each by 12 to 18 men. These schooners would generally leave the different harbors about the 21st of March in order to escape the equinoctial gales, or "St. Patrick's brush," as it was called. Experience soon demonstrated that the proper time for leaving port was the first of March, in order to reach the young or white seal before they had grown sufficiently strong to take to the water. As many as a hundred vessels used to leave the harbor of St. Johns every spring for the icefields. So remunerative was this industry that its expansion was wonderfully rapid up to 1815, when the whole business of the country sustained a severe shock by the termination of the wars between England



HUNTING SEAL ON LAND ICE

and France. Statistics go to show that in that year only 126,315 seals were caught, while in 1844 the number reached the astonishing figure of 685,530. In 1857 there were 400 vessels, of from 70 to 200 tons engaged in the seal-fishery, their united crews numbering 13,000 men. The average annual value of the seal-fishery at that period was from a million to a million and a quarter dollars. In 1863 steamers commenced to take the place of sailing vessels. This change has revolutionized seal-fishery. In 1882 there were 25 steamers with an average tonnage of about 500 tons.

The use of steam in place of sails has reduced the number of hands engaged in this industry more than one half. The fishermen have lost by this change. The men now receive only one-third of the value of the seals taken by each vessel, instead of one half, which was their share in sailing vessels. The great difficulty now with them is to get berths on board the steamers, and hundreds of applicants are left behind every year. Some years the losses to men and ship owners are great. In 1894, the 21 steamers engaged captured only 152,821 seals. It is a mistake, therefore, to suppose that the capitalists receive an undue share of the profits. Their losses, when the animal catch is small, are very serious and the returns on their heavy outlay are, on an average, very moderate. Some years, on the other hand, both crew and ship owners have a rich harvest. The largest bill ever made in a St. Johns steamer was that made by the crew of the S. S. "Nimrod," in 1871, a crew of 140 men made $208.47

each, in two trips—28,087 seals were taken. In 1900, 19 steamers brought in 353,276 seals, the number of men employed being 3,760 and the men's profits averaged from $3.16 to $58.48 each. The risk of property to the ship owners is great; for example, during thirty years, from 1863 to 1893, no less than 16 steamers were lost by being crushed between the ice. No lives were lost, as the men saved themselves by taking refuge on the ice, from where they were picked up by other steamers or they reached the shore by walking over the ice-floes.

The Gulf of St. Lawrence and the coasts of Greenland and Labrador are the favorite sealing grounds of the Newfoundland fishermen. Parties in St. Johns control, to a large extent, this industry at the present time, and from this city most of the yield in fur and oil finds its way into the home and foreign markets, .

About twenty steam schooners, manned by from 2,000 to 3,000 men, that is 100 to 300 men to each vessel, constitute the present annual sealing force. A recent law, intended to protect this valuable fur-bearing animal, limits the vessel to one sealing trip a year. The month of March is the sealing season, and lasts from twenty-five to thirty days. The seals come to their breeding grounds in countless numbers during the last week in March, the average time being about the twenty-fifth of the month. They congregate in compact herds on the smooth ice. All of the young seal are born within two or three days. Twins are very rare. The young seal, three weeks old when the coat is white,



A BREATHING HOLE IN THE ICE FOR THE SEAL

yields the valuable fur. The skins of the old animals are tanned and are converted into leather, the fur being worthless. The mother seals leave the breeding grounds as soon as the young can take care of themselves. The season, therefore, is a short one. The steamers leave St. Johns about the same time, and then a race begins to reach the breeding grounds and locate the herds. This year the crew of the "Erik" found three herds, estimated at 15,000, out of which 7,000 to 8,000 were taken. As soon as a herd is in sight, the steamer sails slowly along the margin of the ice. The men, armed with a sealing hook, jump off and land on the pans of ice, when they are divided into groups of about ten each, under the command of a foreman, an experienced sealer, for each set. After the organization of the crew has been completed, and the manner of attack on the animals planned, the herd is surrounded and the slaughter begins. The work of destruction does not deserve the term "seal-hunting," as it consists largely in killing the helpless infant seals by clubbing them to death. The club is a heavy stick about six feet in length, mounted on one end with a gaff, consisting of a spearlike projection and a hook. This rude weapon is not only used in dealing the death-blow, but, with the hook, animals are jerked out of the water and drawn upon the ice. It is also an exceedingly useful implement to the men in jumping from pan to pan of the pack ice, and in case a man makes a misstep, it aids him in escaping drowning until he can extricate himself. If his efforts are fruitless, a nearby companion uses his gaff in landing him on the ice.

The baby seal is easily killed by a blow on the head, others are kicked to death. The mother seal remains faithful to the last in defending her offspring, and if there are not enough baby seals to make the catch remunerative, the old animals are killed in their turn by clubbing or shooting. Even the hardy seamen speak of this slaughter with emotion. Frightened almost to death by the presence of so many men, and the work of carnage, these helpless, innocent little animals lift their tearful eyes and utter their mournful, baby cry in appeals for mercy; but no amount of supplication can save them from certain death; the ruthless slaughter goes on until every baby seal is counted among the dead. The extermination of the new-born is always complete. Many of the old animals escape, only to return the next year to meet a similar cruel reception. The slaughter of the innocents completed, the task of skinning the carcasses begins. The season being so short and the competition keen, everything must be done with as little loss of time as possible, to clear up the field in order to find and exterminate another herd. These men are experts in removing the valuable parts of the animals killed—the skin and the thick layer of fat between it and the underlying muscles, both of which are removed together with a few strokes of the knife. An incision is made, with one stroke of a sharp knife, from one end of the animal to the other, on the ventral side, and, in a minute and a half, skin and fat are severed from what remains of the carcass, which is left on the ice to be devoured by flesh-eating animals. One



SEALING CREW ON ICE FIELD

flipper is left attached to the skin to facilitate the handling of it. The steamer hovers in the neighborhood of the bloody field of the dead, and with hooks and winch, the skins are brought on deck and later stored away in the hold of the ship, where they are preserved by the use of salt and ice.

To make this business remunerative, each vessel ought to take about 30,000 animals. The crew is entitled to the value of every third seal, and the captain receives besides, four per cent. of the value of the cargo. The cargo is sold by weight, the present value being from $3.50 to $4.00 a hundred-weight. Sealing is not as profitable now as it was a few years ago, when the product yielded as high as $9.00 per hundred-weight. Formerly most of the raw material was sent to England; at the present time it finds a ready sale in the United States, and the demand for it is on the increase. The price of the fur vacillates from year to year, the fluctuation depending largely on the estimate in which the fur is held in fashionable society. Notwithstanding this wanton, wholesale animal slaughter, old sealers claim that there has not been a material diminution in the number of animals which migrate to these breeding grounds every spring.

The competition between the different crews, for obvious reasons, is a very keen one. An experienced master and an able-bodied, active, fearless crew weigh heavily in the balance of success, but luck plays its pranks here as well as in other vocations. If a herd is sighted by several sealers at the same time, a rush takes place, but the different

crews are held together by the foremen and pursue preconcerted methods established among sealers and fix their claims on the dead animals by planting their respective ship flags on the pans of ice on which the seals are killed. Stealing of dead animals or their skins subjects the convicted culprits to a heavy fine.



MUSK-OX OF NORTH GREENLAND

OFF FOR GREENLAND

Waiting is always unpleasant, and sometimes painful; suspense and uncertainty foster discontent and test patience to the extreme of endurance. Commander Peary was anxious that the "Erik," his supply ship, should leave port as soon as possible, and sent an order, by wire, from New York, to that effect. The unloading of ballast and loading of the coal cargo required much more time than was anticipated. Doctor Sohon and I boarded the vessel Saturday afternoon, July 15th, confident that we would get away that same evening, or at least sometime during the night; but disappointment followed disappointment. Coaling was suspended promptly at midnight, as Sabbath day is more strictly observed in England and her possessions than in any other country in the world. The English sailor, when in port, claims Sunday as a day of rest, and absolutely refuses to do any kind of work, unless his ship should be in danger. A Sunday aboard ship in a coaling dock is not a pleasant experience. The captain assured us that he would sail at ten o'clock A. M., Monday. The coal heavers, however, did not put in their appearance until Monday morning. The work then began in earnest. From the elevated coal docks, car after car discharged its contents over chutes through the hatchway into the capa-

cious hold of the ship, amidst clouds of dust which penetrated every crevice and found its way into the galley, dining room, and cabins, in spite of all efforts to exclude it. Officers, crew and we two passengers, stained black with this impalpable coal-dust, looked like negroes before the 650 tons of coal were on board. When the coaling was finished, the whole deck looked like an entrance to a coal mine. The hold of the vessel and the bunkers were gorged with the precious fuel to be consumed in the far North, in the coming effort to reach the pole. Thirty-three tons were in bags piled on deck, and then a mountain of loose coal occupied more than half of the deck, leaving only a very small free space around the galley and cabin entrance. When the vessel was ready to sail, one of the officers was missing, retarding again the departure. He had gone on shore and, although Sydney is supposed to be a temperance town, he found enough firewater to make him forget the hour of sailing. The steam whistle screeched and screeched unmercifully to remind him of his delay. He finally came, and we left the dock at half-past six o'clock Monday evening, July 17th.

After passing North Sydney and Sydney Mines, and leaving the entrance of the magnificent harbor, we were in full view of the great Atlantic Ocean; and after the unpleasant experiences of the last two days, we were in a fit state of mind to comprehend and appreciate the meaning of:

> "The sea! the sea! the open sea!
> The blue, the fresh, the ever free!"—*Procter.*

Commander Peary had made arrangements for me to occupy the captain's room, the only cabin deserving such a term in the vessel. As we, the only two passengers, had our own provisions and cook, we were independent of the officers' mess, and set to work at once to establish our own housekeeping during the long voyage to and back from the arctic region.

The weather was all that possibly could be desired—a cloudless sky; a gentle breeze from the southwest; the temperature 56° F.; the atmosphere bracing and dry. In the long, peaceful, beautiful, bewitching twilight which lingered until the hour of ten, the green coast of Cape Breton gradually, almost imperceptibly, disappeared in the distance—and our heavily burdened steamer glided over the rippling surface of the ocean as smoothly as a birch canoe over the sleeping bosom of a tiny, silvery, inland lake. As the soft twilight gave way to the darkness of the summer night, we became conscious that it

> "Hath in her sober livery all things clad."
> —*Milton.*

The somber darkness was of short duration. The full-grown smiling moon soon made her appearance and chased away the darkness that had hardly begun.

> "The moon arose, clad o'er in light,
> With thousand stars attending on her train;
> With her they rise, with her they set again."
> —*Cowley.*

This first night on the ocean, with the pure, cool, bracing air, after eight months of incessant toil and a week of anxious waiting for the ship that should bring us the much-needed annual rest and recreation, was like a calm after a storm—like a sunshine after many days of clouds, fogs, and mists. The soft, enchanting moonshine and the myriads of stars twinkling in the pale blue dome of the sky riveted our attention for hours, as

> "Nobody looks at what is immediately before them; we are all employed in gazing at the stars."—*Cicero.*

The next day after a refreshing sleep, we found ourselves near the west coast of Newfoundland, with Cape Race still in sight behind us. The whole day we sailed along the coast, made interesting by the rugged range of mountains, undulating and dentated, intercepted here and there by bays, and clad with pale green grass and the dark foliage of stunted pine and fir. This coast range, at some points, attains a considerable height; Mount St. Gregory, one of the highest peaks, rising to an altitude of 2826 feet. Toward noon we saw the first snow in the form of white flecks, in some of the deep gulches on the mountain sides. The coast scenery of the Bay of Islands, as seen from the deck of the steamer, is one of the finest in America. During the afternoon we saw the first arctic bird, a tern, closely allied to the gull family. The average temperature during the last twenty-four hours was 57° F.; very little breeze and the sky slightly overcast.

Wednesday, July 18th. There was lightning



CLEANING UP AN ICE PAN

and thunder last evening, raining hard all night, foggy along the coast, and a drizzling rain during the forenoon. At noon we met the first icebergs, six in number, when in sight of Greenely Island and the mainland of Labrador. These icebergs retained their aspect of virgin purity, but showed all stages of disintegration, from the destructive effects of the aggressive July sun during their slow passage through Belle Isle Strait. The low coast of Labrador is treeless and only lightly draped with a sward of pale green grass.

A little fishermen's village, well sheltered by surrounding hills, which we passed in Blanc Sablon, is the place selected by Doctor Grenfell, the Father Damien of Labrador, for a hospital for the fishermen population of that part of Labrador. This is a most excellent choice for the people who live here throughout the entire year, and for the transient fishermen who frequent this part of the Labrador coast during the fishing season, and who, without such a humane institution, would find it impossible to secure medical aid in case of injury or disease. As we approached the Strait of Belle Isle, a narrow passage of water, on an average fifteen miles wide and fifty miles long, between the coasts of Labrador and Newfoundland, we met several schooners engaged in fishing for cod. The coasts of Labrador and Newfoundland are famous for their remunerative cod-fisheries. As we entered the strait a thick fog obscured the coasts, and all officers were at their posts, straining their eyes for sources of danger as the steamer crept along at half speed,

We were shown many places made memorable by shipwrecks. Belle Isle Strait has a bad reputation among seafaring men on account of the frequency with which dense fogs settle here. One of the officers, an experienced whaler, sealer, and fisherman, related to me some very interesting facts concerning

Newfoundland's Cod-Fishery

Of Newfoundland's population of about 200,000, nearly 60,000 are engaged in catching and curing fish. The average annual value of the cod-fishery is $4,500,000, of the seal-fishery, $600,000, of the herring and salmon fisheries, $250,000; of the lobster fishery, $60,000. The total value for 1902 was $8,956,992. Cod-fishery is the summer industry of a large part of the fishermen population of Newfoundland. Most of the business is in the hands of a few St. Johns firms. The work is done by the use of small schooners, each of which has a crew of about ten men, and which carries four or five dories. The fishing is done near shore by the use of nets, and farther out by trawling. When the captain of the schooner has selected the fishing ground, the dories set out, and each man attends to his own trawl. The trawl used here is a stout line about a mile in length, to which are attached 1500 cod hooks, baited with fragments of the squid; the ends of the line are fastened to an anchored float. The fish caught, after being properly dressed, are salted, either on board the schooner, or at the fishing station. The drying is done on wooden racks with or without an intervening layer of small branches of the fragrant

fir. Dried codfish constitutes an important article of food over a large part of the surface of the earth, hence it has always a ready sale and commands a good price. From the liver of the cod, the medicinal cod-liver oil is obtained. It is strange that, so far, no attempts have been made to convert the parts of the fish not used into a fertilizer, as is being done now with the waste material of the whale.



MOONLIGHT GLIMPSE OF LABRADOR COAST

A GLIMPSE OF LABRADOR LIFE

I have already referred to the dangers the seamen face in passing the Strait of Belle Isle. We were made aware of these soon after passing Point Amour. The current was unusually strong, a stiff breeze set in, and a dense fog made further progress imprudent, so the captain decided to find shelter for the night in Loup Bay, an excellent little harbor, fringed by a small fishermen's hamlet, made up of about twenty small frame houses. After dropping the anchor, we were safe for the night in the snug little harbor and felt:

> "My vessel is in the harbor, reckless of the troubled sea."—*Terentius.*

The mournful sounds of the fog horn at Point Amour, and the intermittent screechings of a steamer, fog bound in the strait, were kept up the balance of the day and the greater part of the night. A fishing schooner in full sail emerged, phantom-like, from the fog about the time we entered the harbor, and sought the same shelter. It was three o'clock in the afternoon when we left the steamer in a row boat, headed for the whaling station about a mile from the hamlet; and soon after I set, for the first time, my feet on Labrador soil. We were courteously shown this interesting modern establishment by the foreman, who explained to us the processes

which are now employed in converting the giant of the sea into oil and fertilizer, after the most valuable part of the animal, the whalebone, has been removed.

The day before our visit, three black whales were brought to the station, and the last one was in the process of being cut up. The great slabs of blubber had already been converted into oil and the immense steam vats were filled with the remaining oil-yielding tissues, including the brain, bones and muscles. The enormous jaws had been stripped of whalebone, which appeared in two separate pieces, made up, as they were, of two densely packed, flat-fringed segments of whalebone, somewhat in the shape of overlapping fans. The rendering establishment, a group of brick and frame buildings, is supplied with modern machinery, and every part of the animal is utilized. The intestines are preserved by salting, and later are converted elsewhere into leather.

In a separate building all refuse is made into a fertilizer, which is shipped in bags. A dozen men were busy in carving the carcass with large knives, fastened to wooden handles. These men are familiar with the anatomy of the whale skeleton and are marvelously dexterous in the use of these huge knives which resemble very much a small scythe. In another large building a gang of men was employed in curing codfish which were being brought in by the fishing schooners, owned by the same firm. Tons of salted cod were stored in the warehouse, and many more tons were spread over the wooden frameworks



HOPEDALE—LABRADOR WHALING STATION

outside, undergoing a slow process of desiccation. The smell in such establishments is anything but agreeable to the uninitiated, although the utmost cleanliness prevails everywhere. More than an acre of ground was covered with wooden racks, upon which the black whalebone was undergoing the same process. Forty men are employed here, throughout the entire season, in disposing of the whales and in curing and drying codfish.

A well-beaten path from the whaling station leads along the coast to L'anse de Loup, or Loup Bay, the harbor, about a mile distant. We returned to the hamlet by this path and on the way I improved the opportunity to study the flora of this part of the Labrador coast. The flowers, familiar to me and in blossom now, make their appearance in the neighborhood of Chicago during the last two weeks in April. I found here the iris, dandelion, smilax, dewberry, gooseberry, ranunculus, buttercup, wild strawberry, sorrel and watercresses. Beautiful ferns were just peeping through the shallow, boggy soil on the side of the terraced mountain and were just beginning to unfurl their curled up fronds. Dwarf willows were in the act of producing their catkins. Tufts of light green grass and stunted fir and alder made up much of the verdure of the mountainside. Much snow remained in places sheltered from the spring sun, and numerous bubbling rivulets of the purest water intersected the green swards and the diminutive forest of stunted, storm-tossed trees. The little hamlet has one public building, a small frame structure, with many windows,

which is used as a school house, public meeting place, and church. In the last capacity, it serves Catholics and Protestants alike. Vicious-looking dogs guarded the doorsteps of nearly all the huts, which reminded us of the fact that we had passed beyond the limits of wagon roads and the horse as a beast of burden. Most of the huts had little vegetable gardens in front of or behind them, and in some of them I saw patches of vigorous rhubarb and potato plants just emerging from the loose, sandy soil, and cabbage plants set out only a few days before. A number of icebergs were stranded on the shore of the harbor, others remained motionless in the pacific water, all of which, when the night set, loomed up like specters in the darkness.

A Capelin Run

"Each bay with fog innumerable swarms, and shoals
Of fish, that with their fins and shining scales
Glide under the green waves, in sculls that oft
Bank the mid sea."—*Milton.*

The capelin (*Mallotus villosus*) is a small salt-water fish, which, at certain seasons of the year, is found in fabulous numbers on the coasts of Newfoundland, Iceland, Alaska, and Greenland. We were treated to a rare and interesting phenomenon, illustrating the abundance of marine life, the evening we spent at Loup Bay—a real capelin run. The capelin is a small fish about four inches in length, a kind of smelt that comes to the Labrador coast regularly every year during spawning time, and

after a few weeks disappears as suddenly and mysteriously as it came. This migration the fishermen call a "capelin run." The capelin season begins about June 25th and is over about the middle of August. The fish seek the shallow water near the shore, where they congregate in fabulous numbers and, rubbing with the ventral side against the sandy bottom, deposit the spawn, a performance the fishermen call "rolling." Fishermen's stories, as a rule, are not noted for veracity and some will, undoubtedly, regard my account of the capelin run I saw as an exaggeration of what really occurred. The fact, however, remains that as we walked along the sandy shore about sundown, the clear, shallow water was made black by wriggling masses of these little creatures, entirely obscuring the sandy bottom. Many who came too near the edge of the water were thrown by the waves on the beach, and hundreds of dead fish were thrown backward and forward by the lapping waves. One of the sailors secured a cast net, and in three casts landed two bucketfuls of the fish, all of them nearly uniform in size. The numerous dogs patrolled the shore and helped themselves to fresh fish as they were being thrown on the beach. We could now understand the contented appearance and good behavior of these ugly, wolf-like animals. In front of every fisherman's hut, salted and unsalted capelin were being dried; the former as food for man, the latter as a winter supply for the dogs.

Another proof of the abundance of fish in this part of the Labrador coast was given us when we

returned on board the "Erik." During our absence two of the sailors and our cook amused themselves by fishing for tomcod. No need of bait or special skill here. The method employed might not satisfy the sportsman, but it brought the fish on deck. The tomcod is so plentiful in these waters that the fishing is done with baitless hooks. A double hook in the shape of a miniature anchor, with a sinker immediately above it, is put at the end of the line. After the hook has reached a certain depth, the line resting on the gunwale is suddenly jerked up two or three feet, and this see-saw motion is kept up until one of the fish, attracted by the glittering, moving object, is hooked and hauled on deck. More than a pailful of small cod were caught in this simple manner in less than two hours.

Whale-Hunting

Whale hunting, as practised in the Greenland and Labrador waters, has undergone remarkable changes during the last few years. The old whalers, in open whale-boats, and experts in the use of the hand harpoon, would find it necessary to-day to learn new lessons in the successful practice of their vocation. The tactics of whale-hunting have been revolutionized by the substitution of the steam launch for the rowboat and by the use of the cannon, instead of arm and hand force, in throwing the deadly harpoon. Whales of all sorts have become scarce in these waters and the sperm-whale, the most valuable, has become almost extinct. The sport part of whaling has given place to means of



A VETERAN WHALING CREW

destruction calculated to secure the game with the greatest degree of certainty, and in the shortest possible space of time. The hand harpoon was not a fatal weapon. It served the purpose of tiring out the animal, after a long and dangerous chase, when the exhausted beast could be approached with greater safety with killing weapons. In the struggle for life the animal had some show of escape and even of victory. To-day victory is altogether on the side of the pursuers, with no risk to life on their part. To make the waning business of whaling a paying industry, the scarcity of the game makes it necessary to secure as many as possible of the animals that are discovered.

The black whale (baleen), the species usually hunted here, has a swimming speed of ten to eleven knots an hour. He can not live under water for more than an hour and twenty minutes at a time without coming to the surface for air; hence, when once discovered, he can be followed and kept in sight by a crew in a steam launch until he is sufficiently tired out to come within range of the cannon harpoon. The harpoon now in use is a vicious and most deadly weapon. It consists of a bar of iron about four feet long, and about the size of the forearm above the wrist. The penetrating end of the harpoon has a sharp point and four enormous ugly looking barbs which lie close to the stem of the weapon when it enters the body of the whale, and are spread by the explosion of a cartridge fired by a cap when the harpoon strikes a solid resistance. This giant harpoon is fired from a cannon,

three feet in length, mounted and operated on the bow of the steam launch. This harpoon not only grapples the huge animal, but often the explosion in the interior of the body kills almost instantaneously. If this is not the case, the firing is repeated as often as the animal comes to the surface and is within range. The first and all subsequent shots are fired at close range, never more than forty-eight feet. A black whale, of average size, yields about $1,000 clear profit to the firm. The value of a sperm-whale sometimes reaches the enormous figure of $20,000.

THROUGH BELLE ISLE STRAIT

Friday, July 21st, we left Loup Bay harbor at 3:30 A. M., the fog having thinned out into a mist. We were soon out of sight of land and surrounded by icebergs of all dimensions, from the size of a large dwelling house to remnants not larger than the ice-blocks in a refrigerator.

> "And now there came both mist and snow,
> And it grew wondrous cold,
> And ice most high came floating by,
> As green as emerald."—*Coleridge.*

As we proceeded and again came in view of Labrador, the amount of snow on the mountains increased and the icebergs were larger. Owing to a cloudy sky, a drizzling rain, and a misty condition of the atmosphere, the Newfoundland coast never came in sight. The eastern inlet of the strait, near Battle Harbor, presented a beautiful panoramic view. Hundreds of icebergs had congregated here, many of them stranded in the shallow water, after their voyage from the far North. Although the atmosphere was misty, I could count fifty icebergs from the deck of the steamer, surrounding us on all sides. Their marble whiteness and size were intensified and magnified in the prevailing mist. Many of these monster masses of solid ice were at least 300 feet in width, and rose 120 feet above the level of the sea. As the submerged part of an iceberg

is approximately seven times greater than that above the water, one can realize the enormity of the size of these giant offsprings of the Greenland glaciers.

Dr. Kane, in estimating the size of an iceberg in Melville Bay, and it was not the largest one he saw, reached the conclusion that it represented sixty-one millions of tons in weight. All of the largest icebergs had become arrested in their slow, southern course, where the depth of the strait is given at sixty fathoms; another indication of their gigantic size. A few of these bergs had brought their moraine with them; others had lost their marble whiteness, on summit or side, by turning over and rubbing against the sandy bottom of the sea. Many of them were cracked and fissured, and all of them exhibited indications of a slow process of disintegration from the effects of rain, warm sunshine, and the swift current. These elements had sculptured summit, sides and base into strange, fantastic designs, some of them of exquisite, artistic beauty. Marble white, delicate blue, and emerald green were their prevailing colors, while above the surface of the water, blue shown in the fissures and fresh surfaces, and a delicate green of the submerged base. Nature's chisel had done some beautiful carving in the form of grooves, ridges, cup-shaped depressions, pillars, steps, verandas, porticos, gables, towers, steeples, doors, windows, outlines of human and animal faces. Some of them showed the outlines of churches, houses, ships, and fortresses, etc. This part of Belle Isle Strait is an immense cemetery for these travelers from the arctic



TWO WHALES IN PROCESS OF CUTTING UP

regions. No one knows how long they have been on their journey. They would never have met such a cruel fate if they had remained where they were born; but their cradle was too deep into which they fell when they separated involuntarily from their glacier mother and crashed into the cold bosom of the ocean, with the noise of thunder, bounding and rebounding, rocking and swaying, in the tumultuous water, infuriated by their fall, and on the return of calm, they drifted helplessly with the current in the direction of a climate deadly to their existence. Here they are, an army dying of a fatal disease. It is only a question of a short time when they will return to the element out of which they were moulded by the icy hand of the polar cold. Their sweet water will only serve to dilute the brine of the greedy ocean.

Here, among these silent sentinels, guarding the inlet of the strait, we found a large fleet of schooners engaged in fishing for cod. The Labrador coast is a favorite place for this industry, and the nearby Battle Harbor is a gathering point for the fishermen and serves as a safe refuge in times of danger on the sea. The village of Battle Harbor is comprised of about twenty fishermen's huts, and is noted for being the headquarters of Dr. Grenfell, the well known missionary physician of the Labrador coast. For the last twelve years, this devoted, tireless worker in the cause of humanity, has given all his energy to the spiritual and physical well-being of the fishermen, who earn a scanty livelihood by plying their dangerous business along the misty, foggy,

chilly Labrador coast. One of the several little hospitals, established by the untiring efforts of Doctor Grenfell, is located at Battle Harbor. The Canadian government has presented him with a small coast steamer, which serves him a good purpose in visiting the different villages along the coast during the summer, and in the winter, he makes his trips over ice and snow in a dog sledge. Of such a devoted, self-sacrificing man we can say in truth:

> "Men approach nearer to the gods in no way than by giving safety to men."—*Cicero.*

The hardships these fisherfolk have to endure in these northern waters, during the sealing season, is best shown by a few extracts from the last year's log-book of the master of the "Erik." The start was made from St. Johns, Newfoundland, March 12th. The following day at noon, this record was made: "Ten ships in sight, all working north, through sheet ice. Gray Islands in sight, bearing northwest twenty miles. 4 P. M. Thirteen ships in sight, all making way through sheet ice. The afternoon of the same day, and all next day, severe snow storms were encountered and the ships, under full steam, had to break through the ice. March 15th a herd of 1,000 seal was discovered and 530 animals were taken."

"March 16th, 12 M. Wind east, with snow. All hands out, working on ice. Ship picking up pans. (dead seal on floating ice). 6 P. M. All hands on board with ninety-four flags out (flag planted on an ice-floe secures ownership of the dead). Reports

1,000 seals panned. 8 P. M. Wind east, strong, with snow; ship picking up pans. 9 P. M. Burnt down (ship stopped, fire low). March 17th 12 M. Wind northeast, strong, ship picking up seals. 4 P. M. Ship making good way through sheet ice, picking up seal. 8 P. M. All hands on board. Reports 8,000 seals panned. Ship burnt down in heavy ice." The next day the log says: "7 P. M. All hands on board with 7,000 seals panned, ship burned down in heavy ice." "Ship jammed in heavy ice." "Heavy gale". "Snowstorms." "Ship under full steam, butting heavy ice." "Burnt down." "Making five inches of water per hour." These are expressions found on almost every page of the log book and give some idea of the hardships a sealer must encounter on these annual trips for seal. The last entry was made on April 22d. "12 M. Wind east, raining. Laying in seal on the ice. 2 P. M. Tried seals, but found them wild. 2:10 P. M. Full speed ahead, homeward bound. 4 P. M. Wind southwest with thick fog and rain. 12 P. M. Fog lifting." It is evident that such cruises for seal are not only attended by many hardships, but, also, by no inconsiderable risk to life. Jumping from one pan of ice to another, although closely packed, in the excitement of the chase, must necessarily not only result occasionally in a cold bath, but in danger by drowning, in spite of the skilful use of the gaff, and the aid of near-by companions. There are other and more serious dangers the sealer has to face. A few years ago, a sealing vessel, carrying two hundred and one men, lost forty-three in a gale and severe snow-storm.

It was the only vessel which permitted the crew to go on the ice that day. When some distance from the ship, a sudden, violent gale, accompanied by a raging snowstorm, set in, which made the return to the ship a matter of extreme difficulty, and forty-three perished from the effects of exposure and the intense cold. The cod-fishery, during the summer months, can by no means be looked upon as a pastime. The frequent drizzling rains, the mists and fogs, the chilly weather, and frequent squalls make the life on board the schooners and in the open boats anything but pleasant. And yet there is, and there always has been, a certain degree of fascination about the periphery of danger zones best illustrated by military and marine life. The seaman is not happy unless he is on the sea, and the real soldier is out of his element unless there is some prospect for him to show his fighting strength and skill. The sealing vessels have no difficulty in enlisting the services of a full crew year after year. The fact is, there are more applications than berths, and the captains of the sealers have a large material from which to select their crew. As each man receives his share of the profits of the trip, the best possible efforts of the men thus employed are secured. If the trip is a profitable one, each man is benefited in proportion to the total gain; if it proves a failure, the loss affects them all collectively and individually.

It is among these fishermen and sealers on the bleak coast of Labrador that Dr. Grenfell has cast his lot and carries on his humanitarian work, and they know how to appreciate it. Along the whole

coast of Labrador, his name has become a household word, and wherever his benevolent work carries him, he is looked upon as the benefactor of the men who live and toil on the sea.



BALLAENA, LABRADOR

FROM LABRADOR TO GREENLAND

After leaving the Strait of Belle Isle and passing Battle Harbor, we sailed along the coast of Labrador as far as Round Hills Island, which was reached at midnight. Few icebergs were seen on this part of the route, and most of them were small. The foggy condition of the coast excluded the sight of land. Saturday morning, July 22d, promised a more agreeable day, the fog had vanished and an occasional peep of the sun through the broken clouds cheered the deck, and the heaving bosom of the ocean was the playground of many arctic birds, guillemots, and gulls.

After leaving the dreary, fog-clad coast of Labrador, the captain set his compass for Holstenborg, Greenland, 800 miles almost due north. The track of the ship will be over a part of the ocean noted for its depth, which, on an average, exceeds a mile. The nights are becoming shorter, day after day, as we steam northward, being now crowded in between late twilight and early dawn; the former in this latitude, at this time of the year, does not vanish until 10 P. M., and dawn creeps in at half-past two in the morning. Toward evening, the first day out, the long swells of the sea were lashed by a stiff gale, which soon broke the long swells into short, choppy, foam-crested waves. It was then we were reminded of the beautiful lines:

"The twilight is sad and cloudy;
The wind blows wild and free,
And like the wings of sea-birds
Flash the white caps of the sea."

—*Longfellow.*

The little steamer, groaning under the heavy cargo of coal, responded gracefully to the wild movements of the sea, and assumed the gait so pleasing to the lover of the sea—a compromise between pitching and rolling. Once out of the Labrador current, we looked in vain for icebergs and, from the appearance and action of the sea, and the temperature, we could imagine ourselves on the much-frequented highway from New York to England this time of the year.

That July 23d was Sunday, we could not mistake, as the crew observed this day of rest as far as could be done, even when the vessel was under full sail. Up to now, the furnaces were fed with coal from the deck. Two men kept the bunkers brimful all the time by shoveling coal from the deck into their gaping apertures. This day the shovels on deck were at rest, and the men who handled them during week days, smoked their pipes on deck and in the forecastle. The two firemen below remained at their posts. Another unmistakable Sunday indication was a dish served for breakfast, called "bruise" in the sailor language, a mixture of salt codfish, steamed biscuits, and slices of bacon, a wholesome and savory dish. At the place where we are now, half-way between Labrador and Greenland, the ocean has a depth of 1,500 fathoms, as indicated on

the mariner's map. The same authority makes the statement that the floor of the ocean, as ascertained by soundings, shows sand and coral. Coral formation, at such great depth, could only have taken place when this part of the earth was under the influence of a tropic or sub-tropic climate, and when the ocean here was a shallow body of water, as the coral polyps cannot live below the depth of eighteen fathoms of water, and are inhabitants of the tropics. This ancient coral-bed, formed ages and ages ago, is a silent witness of the insidious changes wrought by nature, silently, but progressively, on the surface of the earth and the floor of the mighty ocean.

We are now on the boundless, trackless ocean, far away from the pathways of ships engaged in business, commerce, or war. Our route is a lonely, deserted one, and there is no use in looking for puffs of smoke or sails until we expect to be met by the "Roosevelt." The leaden dome of clouds veils the sun, which, only for a few moments, could be seen through a narrow, moving window cut in the gray clouds by an increasing breeze from the land of ice and snow.

Animal life has forsaken us, with the exception of a few sea gulls who follow in the wake of the ship with an unfailing hope that sooner or later the generous steward will reward their perseverance and confidence by throwing overboard table and kitchen waste, on which they expect to feast. What constant and persistent sea companions these birds are! They are found wherever human beings have

found their way by sea or ice, and, if they could speak, it would be useless for Commander Peary to make another attempt to find the pole, as these homeless, wandering, fearless, strong-winged birds have, undoubtedly, ere this, looked down upon the desolate pole, in search of a paradise, peopled with fish, harmless, easy of catch, and palatable to their tastes. All credit to these tireless sailors and intrepid explorers!

THE SEA GULL

"Bold bird of every clime!
Swift traveler from pole to pole,
Citiz'n of the deep ocean,
Sky, ice and eternal snow,
Tell the secrets of the pole."

Monday, July 24th. We have spent the last night on board ship. It was a very short one, as the dim twilight did not yield to somber night until well nigh eleven o'clock, and dawn chased away the dying darkness at half-past one in the morning. Night is dying a victim of the approaching, conquering midnight sun. The master of day is receding, but we are in hot pursuit of him, and to-night will witness the last struggle between night and day. At midnight, it will be light. Henceforth, for the next four weeks, lanterns and lights of any kind will be useless. At midnight we will not see the sun, but we will see his victory over darkness.

"Yon light is not daylight, I know it well;
It is some meteor that the sun exhales,
To be to thee this night a torch-bearer."

–Shakespeare.

For us, the star-light nights, for the next four weeks, are over. The sun will assert his majesty and power by day and by night, and the smaller lights of heaven, the moon and the stars, will be lost in his overpowering splendor. Continuous daylight for at least a month! What an incentive for work, and what little inducements to court sleep! I have seen the midnight sun, in all his splendor, at North Cape, Norway, and remember the short nights in Russia, Siberia, and Alaska; and have learned from experience what nightless days mean in the way of chasing away sleep. During the short summer, the Eskimos have no fixed time for sleep, and I presume the same uncertainty in dividing the twenty-four hours properly into time for work and rest awaits us. It has been my experience that continuous daylight for more than a week or two is fatiguing, as custom has taught us to work at least as long as the sun shines and reserve at least half of the night for rest and sleep; and habit is a stubborn thing, and, only too often, an unconquerable master. We had a clear, although cloudy day with a strong breeze until noon, when a dense fog set in, the sea became smooth, and an icy wind met us—all indications that we were nearing an ice-field. This suspicion was soon confirmed by the looming up, in the dense fog, of a number of immense icebergs. Caution now became necessary. The sails, which had been made use of since morning to increase the speed and steady the vessel, were hauled in, and, at half speed, the little ship crawled along slowly between the bergs. In a few hours we emerged

from the fog into the clear, bracing atmosphere, when only a few icebergs were sighted in the distance; evidently the fog was hovering over the congregation of numerous large bergs. In passing through the fog, the whistle remained silent, because, in this desert ocean, there was no need of announcing our presence as there was nothing here but the icebergs, and these are not known to get out of the way of any one. Late in the evening, we obtained a glimpse of the pale sun through a break in the leaden clouds, and, about the same time, encountered a school of whales gamboling near the vessel and throwing jets of water high into the air through the spiracles or blow-holes. One of them, in his curiosity, came almost to the side of the ship, where he appeared, an enormous black mass rising high above the surface of the water. Having satisfied himself as to what the ship really was, he plunged head foremost, into the green element and disappeared as suddenly as he came into sight. We had nothing to fear from these monsters of the sea. Formerly sailors in small crafts did.

> "Seamen have a custom when they meet a whale, to fling him out an empty tub by way of amusement, to divert him from laying violent hands upon the ship."—*Swift.*

We were secure, and as we had no evil design on these giants of the sea, the meeting passed off without accident or bloodshed. Sixty feet is about the maximum length of the *mysticetus*, or Greenland whale. Mr. Scoresby found that of 322 animals, in the capture of which he was concerned, none

occurred exceeding fifty-eight feet in length; and he, therefore, places no reliance on the report of any specimen exceeding seventy feet. The jets of spray and water, thrown into the air when they spouted, reached a height of at least forty to fifty feet. The tail of the whale does not rise vertically like that of most fishes, but is flat and horizontal, only four or five feet long, but more than twenty feet broad. Its power is tremendous. A single stroke throws a large boat, with all its inmates, into the air. Sometimes the whale places himself in a perpendicular position, with the head downwards, and rearing his tail on high, beats the water with frightful violence. On these occasions, the sea foams and the spray darkens the air; the lashing is heard several miles off, like the roar of a distant storm. The tail is the motor of the whale and the fins merely direct and steady the movements. The razor-back whale (*Balaena physalis*) is a much larger animal. One of these animals, found dead in Davis Strait, measured 105 feet in length. Another whale found in the arctic waters is the sperm-whale (*Physeter microps*), the most valuable of all whales. During the first half of the nineteenth century, different species of whale were very numerous along the west coast of Greenland, which, for fifty years, was the favorite hunting ground of the British and American whalers. The wholesale slaughter carried on, year after year, by large whaling fleets, has decimated their number to a deploring extent, and has driven most of the survivors farther north to regions less accessible to the whalers.

Tuesday, July 25th. The average temperature for the day was 44° F. At midnight, twilight and dawn met and banished the darkness of night. The sun, still in hiding, cast his beams of light east and west without showing any partiality to either direction. They blended their luminous sparks, in this desolate part of the world, in the form of a dim midnight twilight and beginning dawn. From now on, until the end of the short, arctic summer, moon and stars will be powerless in the presence of the midnight sun, and we can no longer say with Job:

> "The morning stars sing together, and all the sons of God shouted for joy."—*XXXVIII*, 7.

This may be unfortunate for us as star gazers when we reach our destination, as

> "Her clearer stars glow round the frozen pole."—*Pope.*

Since we left Sydney, the frequent fogs and cloudy sky have made it impossible for the captain to take an observation. We have sailed by the compass and are, as yet, far from land, and in water from a mile to a mile and a half in depth; hence, there is no danger of shipwreck on rocks. The captain, a very cautious man, is anxious to know exactly where we are, and has been asking himself, again and again,

> "Where are we? Ye immortal gods, where in the world are we?"—*Cicero.*

This burning question he answered to his satisfaction, when, at 9:15 A. M., the curtain of clouds was lifted from the sun and a sudden flash of intense

light poured down on the cold, somber surface of the ocean. The noon observation showed that we were in Davis Strait, in latitude 63.1° N., longitude 53° W. The sudden bursting forth of the sun changed the appearance of the ocean, the clouds, and the fog, from which we had just emerged. The face of the ocean, heretofore unfriendly, sullen, of a dull green color, now reflected, mirror-like, the delicate blue of the northern sky, the clouds changed their dull, leaden hue for a white, fleecy dress and the fog behind us became a delicate grayish white veil, suspended from an invisible support and touching the calm, rippling, blue surface of the ocean. The innumerable water-fowl, seagulls and guillemots in the air and on the water basked in the sunshine, and the mercury in the thermometer, in a few minutes, took a sudden leap from 44° F. to 49° F. The warmth and genial influence of the sun brought cheer on the deck, that had been so long in the shadow of gloomy clouds and chilled by weeping fogs.

It was not long before we sighted another field of icebergs, resplendent in the sunshine, sailing in a group in the direction of the current. I counted eleven at one time. They had evidently been on the way for a long time, judging from the extent to which their size and form had been affected by the sun and waves. Some retained their balance, others were leaning toward the weather side, and some of them were turned clear over with the original base high in the air. During the afternoon, fleeting fogs in the bright sunshine, created pano-

ramic views, great in their variety and exquisite in their beauty. The fogs were low, not exceeding the masts of the vessel in height, and traveled fast, coming and disappearing every few minutes, leaving spaces between them where the sun painted silvery pathways among the chasing fogs. When the fogs veiled the sun, they paled his face like that of the moon, and brushed away the warm breath of his rays. All objects in the fog, birds and icebergs, were greatly magnified in their size at the expense of a loss of their sharp outlines. Veiling and unveiling of these things were only a matter of a few minutes, and during the intervals the sunshine was bright and cheering. Repeatedly the action of the rays of the sun on the disappearing, fugitive clouds painted the faint outlines of a rainbow, a fog rainbow, which, however, always lacked vivid coloration. The most conspicuous colors were pale drab and a light gray. This kind of a rainbow, in the sailor's language, is called a "fog-eater," and is looked upon with favor, for it means to the sailor that the fogs are low, thin, and fleeting.

At eight o'clock in the evening, the fog became more dense and motionless. We saw Greenland sooner than we expected. Sailing at full speed through the dense fog, all at once the ship came to a sudden standstill, the propeller was reversed. The watch had espied land ahead of us. When I came on deck, we were within half a mile of two small, low islands. The vessel was turned seaward and proceeded at half speed. On consulting the chart, the captain ascertained that we were at the entrance of God-

haab Fiord, and very near the coast. The fog was so dense that the islands were out of sight in a few minutes. We were very fortunate in safely escaping the first source of danger in coming so unexpectedly, in such close proximity, to the treacherous coast of Greenland.

The captain had orders to sail for Holstenborg, but we got the first glimpse of Greenland, or rather the islands guarding the Fiord of Godhaab, ninety miles south from Holstenborg. The strong current had carried the "Erik" out of the set course, the fog hid the coast, and before we had expected it, we had found what we were in search of—the land of snow and ice.



THIS PHOTO WAS SNAPPED BY TWO WING, A REAL ESKIMO, AT MIDNIGHT
THE NOBLE GAME OF GREENLAND

GREENLAND

"The keen, clear air—the splendid sight—
We waken to a world of ice;
Where all things are enshrined in light
As by some Genii's quaint device."

—*Norton.*

As I am writing this I am in full view of the bleak, stern, rugged coast of Greenland, half-way between Godhaab and Holstenborg. We are, indeed, in a new world, but an old one by discovery. From the time we left Sydney, every day revealed to us new and convincing proofs that we were coming nearer and nearer to the limits of animal and vegetable life. My long and ardent desire to see the heart of the arctics is about to be realized. We are fast approaching that part of the arctic world where explorers of the most enlightened nations have made their headquarters for a final dash for the object of their search—the pole. Greenland is nearer to the north pole than any other known land, and hence, for more than fifty years, it has been made the starting point for the race to the pole. This strange country of ice and snow was well known to the civilized nations long before America was discovered. History relates that this island-continent, or ice-covered archipelago, was first seen by the Norman rover, Gnunbjorn, and later by Erik the Red, who was banished in 982 A. D. for three years, from Iceland, for murder. After an aimless sea

voyage, he found the east coast of Greenland and landing, probably in midsummer, found the mountainsides and valleys covered with grass, called it "Greenland" to distinguish it from the sterile hills and mountains of the island he was forced to leave. As the period of expatriation of this criminal was only three years, we have reason to believe that he gave this seductive name to the island he re-discovered for the purpose of inducing his countrymen to follow him to Greenland on his return to Iceland. It is natural to suppose that, for selfish reasons, he would encourage immigration to the land that had given him safety and shelter while he was under sentence for a capital crime. On his return to Iceland, he succeeded in interesting his countrymen in his scheme to settle Greenland, and retraced his steps with twenty-five vessels, of which only fourteen reached their destination.

The final fate of the second discoverer of Greenland is wrapped in obscurity. In 999 A. D., Leif, his son, visited the court of Norway, where, under the influence of the then reigning king, he was Christianized and returned to Greenland with monks and established a number of colonies near Cape Farewell. These colonies prospered for a long time, but were extinguished by the hostile natives and "black death," an epidemic which raged in Europe from 1402 to 1404, and at last reached Greenland. The colonies became extinct about the beginning of the sixteenth century. Except the scanty ruins of a church, the only vestiges of these early settlements now remaining consist of low, naked walls, which

must have served as pens for sheltering cattle, and an inscription, in the Runic language, on a stone slab, found in 1824, planted erect in the ground, on the island of Kingitorsoak, latitude 73° north, bearing the date April 25, 1135. The inscription has never been completely deciphered. Dr. T. Stewart Traill, of Liverpool, has interpreted this much of it: "Oelligr Sigwathson, and Baaos Tortarson and Oenrithi Osson, on the Saturday before Gagndag erected Thorward's monument, and wrote this." (And then what remained is unintelligible.) [Gagndag was a holiday of the Catholic church in Iceland.]

More than 600 years after the settlement of Greenland by Icelanders, Baffin visited the island and found it bare and bleak, so called it "Land of Desolation." A century after Erik landed, a considerable population from Iceland had settled on the west coast. For several centuries, these people kept in touch with Europe, and it is said they also discovered America, which is very likely, as their pursuit of food-yielding sea-animals would, no doubt, extend their chase at least as far as the coast of Labrador. Later, owing to stirring events in Europe, this communication was intercepted and the colonies were practically forgotten, and all knowledge of them was lost after their extinction by hostile natives and the fatal epidemic. The colonists, and the natives associated with them, had become nominally Christians, and maintained a republican form of government, but shortly before the catastrophes that blotted them out, they recog-

nized the king of Norway as their sovereign. Then follows a blank in the history of Greenland, covering a space of 200 years, until Davis, Hudson and Baffin, the bold English navigators (1585-1616), visited the west coast and began their history-making explorations of the far North. Several expeditions sent by the king of Denmark (1585-1670) to find the colonies were fruitless. In 1576, Frobisher claims to have re-discovered a part of the long-forgotten Greenland. In 1587, Davis sailed along the west coast as far as latitude 73° north; in 1610, Hudson advanced to latitude 76° north; and in 1616, Baffin reached latitude 77½° north, without discovering any signs of a European settlement. In 1727, under Frederick IV, of Denmark, after the missionary, Hans Egede, had founded Godhaab in 1721, firm new foothold of Europeans was gained on the west coast. Hans Egede, an enthusiast in the interest of Greenland, succeeded in securing the sum of $10,000 by voluntary subscriptions, and landed, with his family and forty settlers, at Baal river, in latitude 64° north, July 3, 1721. He was afterward appointed missionary, by the home government, (Danish), with a small salary. The Danish government occasionally granted some aid to the colony. He labored with great zeal in civilizing and Christianizing the natives until 1736. In 1757, the year before his death, he published his book, "Description of Greenland," in the Danish language.

In 1733, Herrnhuter missionaries were sent to the west coast, and a number of settlements were established. Whalers from Europe and America

aided the colonists. Since Greenland has been under Danish rule, the southern part has been divided into thirteen colonies, the most northern settlement being Upernavik. The colonies and settlements are presided over by two superintendents, one for the northern and one for the southern district. Each colony and each settlement has a governor and mechanics, who regulate the affairs of the natives and give them instruction. In 1805, Greenland had a population of 6,046; in 1874, 9,843; and in 1885, 9,892. The present number of inhabitants does not exceed 10,000, including the 230 to 250 Danish officials and settlers. New Herrnhut, founded in 1733, is the largest and most prosperous colony. It is the intellectual center of Greenland. It has a seminary and a small printing plant for the dissemination of spiritual and educational literature, in the native language. Besides this, there are a number of small trading stations, which are visited about three times every summer by vessels, carrying the mail and bringing supplies in exchange for furs, eiderdown, and ivory, which the natives bring to these places from great distances.

Greenland is the largest island in the world. It is an island-continent familiar only to explorers, whalers, and the few white people living there in the service of the Danish government.

The many books written by explorers, who attempted to reach the pole by making Greenland the base of their expedition to the farthest north, have been read by millions of people; but no one can obtain a correct idea of this strange and mys-

terious icebound and ice-covered land, from the best written and most accurate accounts. To know this, the most northern of all known lands, it must be seen. The complicated topography of the country, the interesting native population, the mighty ice-cap, the countless glaciers, the floating mountains of ice, the resistless, moving fields of floe-ice, the gigantic sea-animals, the scanty but beautiful flora, the long summer day, and the equally long winter night, are things which must be seen to be understood and appreciated. The average layman is impressed with the idea that Greenland is an uninhabitable wilderness of ice and snow, and it is hard to make him believe that the arctic summer, with its midnight sun, even as far north as Etah, the very heart of the arctics, is delightful.

It has a temperature usually ranging from 31° to 55° F., with sea and air teeming with animal life, the valleys and hillsides clothed with verdure, wherever there is enough soil for seeds to germinate, and where beautiful tiny flowers meet the visitor's eye and impart a warmth to the arctic scenery, which must be seen to be felt. Greenland was formerly supposed to be a peninsula of the American continent, or an archipelago, connected by a mass of ice. Its insularity was discovered by Commander Peary in 1892, who ascertained that a strait, believed to be Nordenskiold's Inlet, stretches from Lincoln Sea on the west to the Arctic Ocean on the northeast coast. From south to north, Greenland is about 1,400 miles in length, and its greatest width, from Cape Hatherton on the west coast to Cape

Bismarck on the east coast, is 690 miles. The interior of the island is covered by eternal ice, which occupies about four-fifths of its entire surface. This monster ice-cap stretches out arms toward the sea, on both coasts, in the form of innumerable glaciers.

This ice-cap ascending in a gradual slope from both coasts until it reaches an elevation of at least 8,000 feet, has been explored more thoroughly by Peary than by any one else. Twice he traveled from coast to coast, encountering terrific winds and blinding snow-storms, which more than once threatened the lives of the entire party. In 1902, he explored the northeastern part of Greenland, and described the coast that no human being had ever seen. Contrary to what had been claimed, he found in this remote part of the island, musk-oxen, polar hares, polar bear and signs of ptarmigan.

This giant island lies between the Atlantic Ocean on the east, and Davis Strait, Baffin Bay, Smith Sound, and Kennedy Canal on the west, and extends from its most southern point, Cape Farewell, from latitude 59° 48′ to a little above 82° north, and comprises 500,000 square miles, of which 400,000 are occupied by the ice-cap, or, as the Danes call it, "ice-blink." The interior, from north to south, and nearer the east than the west coast, is a mesa of ice surrounded by mountains spreading over the whole island, except along a narrow coast fringe. The interior ice-cap is the last of those glacial conditions which for ages submerged northern Europe and northern America in its deluge of ice. Peary

estimates that the ice-cap is 1,650 feet in thickness, so that the high plateau is in reality an immense glacier, which is moving westward. The more than 100 large coast glaciers are merely prolongations of this interior ice, which reach the seashore between clefts in the coast range of mountains. The traveler who sails along the west coast of Greenland is seldom out of sight of the ice-cap glittering in the sunshine, and, in dark and cloudy weather, lighting up the clouds (ice-blink). Peary calls the interior ice an arctic desert, vastly greater than the African Sahara, and entirely devoid of animal and vegetable life. From the highest point of this ice-cap, fierce winds rake its surface in all directions, and in this way progressive increase in the height of the cap is prevented. The natives know the ice-cap under the name of *Sermik soak*, and will not venture upon it if they can avoid it. They could never understand why Commander Peary was so persistent in exploring it, and, at last, surmised that he was in search of another race in the farthest North.

On the east coast, the island is cut by the Franz-Josef and Fligely's Fiords. The land, free of ice, is a narrow strip along the coast, five to twenty-five miles in width, made up of mountains and valleys and deep-branching fiords. Numerous deep fiords, some of them the beds of great glaciers, fed by the ice masses of the interior and a labyrinth of peninsulas, bays and capes, characterize most of the coast. Cliffs and mountains from 1,500 to 7,000 feet in height skirt the coast almost everywhere. The water from the melting ice and snow is drained

into the ocean by brooks and rivulets, and some of these watercourses are large enough to merit the name of river. The large glaciers moving down the fiords, of which about 100 reach the sea, break off as ice-bergs at the edge of the sea. Numerous islands, the favorite breeding places of the arctic birds that migrate north during the summer, lie along the west coast, but are less numerous on the east coast. "The two distinctive features are the rugged and mountainous coast belt, extending from two to twenty miles inland, and the ice-cap, which covers all the rest of the island. Mt. Petermann, at the head of Franz-Josef Fiord, is the highest peak, reaching an altitude of 10,725 feet. The altitude of the west coast mountains, south of the Arctic Circle is about 1,600 to 2,000 feet, with a few black jagged summits, that rise 5,000 feet above the sea." (Peary.)

Gneiss, granite, and other crystalline formations form the bulk of the base rocks, accessible for study. Sandstone, slate and basalt are also found on the west coast, the latter more especially on Disco Island, where waves have sculptured it into fantastic and picturesque forms. The mineral resources of Greenland are meagre. Cryolite constitutes the principal article of export, yielding an income, in 1874, of over $186,000. The revenue from these mines, located in the southern part of the island, near Ivigtut, the only ones in the world, has been gradually on the increase since. Traces of copper have been found at different points on the west coast. The mineral, endialyte, found near the south end of the island, is also a no inconsiderable

revenue. At Godhaab, the smoke topaz, and garnets of an inferior quality, are also found. Coal of good quality is found on Disco Island, near Godhavn, and, it is said, also along the coast of Lady Franklin Bay. In 1886, Peary found at Atane Kerdluk, near Disco, the famous fossil-beds and petrified wood. Between the layers of sandstone were the distinct outlines of leaves and ferns. The presence of coal, and the fossil flora and fauna, show types of vegetation and animal life akin to some now found within the tropics. The early explorers found volcanic craters, one of which emitted steam and smoke when it was discovered.

The early history of this strange island is wrapped in mystery. How long a time has elapsed since its mountains were green and tree-clad, and inhabited by animals which, now, are only found in the temperate zones and tropic and sub-tropic climates, is only a matter of mere conjecture. The stern fact remains that, since then, it has become the coldest region in the world.

Climate

No foreigner has had a longer and greater experience in studying the climate of Greenland than Commander Peary, and I will let him speak on this subject.

The climate and seasons within the arctic circle exhibit most peculiar and striking features, which modify, in a singular manner, the whole aspect of nature. The climate is very variable, and is greatly influenced by a branch of the Gulf Stream, the fierce

winds from the ice-cap, and the amount of floating ice along the coasts, in the form of ice-floes and ice-bergs. Temperatures of —60° F. to —70° F., during the winter, have been recorded in northwest Greenland. The mean winter temperature at settlements in south Greenland has been observed as varying between —70° F. and 20° F. At Upernavik the mean temperature for three summer months is 38° F., and farther south, at Julianshaab, it is 48° F. More snow falls in the south than in the north. The branch of the Gulf Stream flowing north along the west coast is conducive to the habitability of that region. The climate is more severe on the east than the west coast. The mean temperature for eight months, at McCormick Bay ascertained by Mr. Verhoeff, the unfortunate member of the Peary expedition, 1891-1892, was as follows:

August 37.84°
September 23.28°
October 8.57°
November—0.16°
December—14.09°
January—20.53°
February—15.77°
March—22.12°

This table appears to agree with observations of the governor of Godhavn, who informed me that in that part of Greenland, and throughout the southern part of the island, March is the coldest and most disagreeable month. June, July, and August are the summer months and it is during this time that vegetable life thrives with an energy unknown in the

temperate zones. A very few weeks, under the magic influence of the midnight sun, suffice for the grass to sprout and grow to a height of four to ten inches, and for the flowers to bud, blossom, and ripen their seed. The pack ice in Melville Bay, Smith Sound, and Kennedy Channel, during the summer months, is one of the most puzzling things to all seafaring men who enter those waters. Kane and other explorers have reported open water north of Smith Sound, and believed that they had discovered the open Polar Sea; while others have been imprisoned in ice all summer in Baffin Bay. The only drift-ice we encountered was off Cape Athol, on our upward trip; otherwise, the water was remarkably free of ice on the entire voyage, with the exception, of course, of the icebergs, which were almost our constant companions.

The natives calculate time by their winters, the season of fast ice, which they call "*Opipok.*" The snow blizzards, during the winter, are far more dangerous to natives and foreigners than the intense cold, as the native dress is ample protection against the latter, while the cyclonic and impalpable snow blizzards render outdoor life almost impossible without an effective mechanical protection. It is very strange, and yet it appears nevertheless true, that putrefaction of animal products takes place more rapidly during the Greenland winter than in the summer. Dr. Kane relates that a reindeer shot on the 22d of February, brought on board the "Advance" the next day, was almost uneatable the second day, the temperature being

at that time —35° F. The Eskimos say that the extreme cold is rather a promoter than otherwise, of the putrefactive process. To prevent this they withdraw the viscera from the animals immediately after they are killed and fill the cavity with stones. (Kane.)

ALONG THE WEST COAST OF GREENLAND

> "Should I be placed alone in the barren wastes where no trees burst into bloom, and where no flowers cheer my eyes in the brief summer; icebound, mistclad and overcast with leaden clouds! Should I be banished to where the earth forbids man's abode, in lands too near the fiery car of the day-king, I still would find enough to study and admire the wonderful works of creation and to praise the goodness and mercy of the Almighty."

We are now sailing along the west coast of this mysterious island of the north, in full sight of its island sentinels and rugged mountains checkered with ice and snow.

I look in vain, for trees and shrubs, and at this distance the sprouting grass is obscured by the black and gray of the bald mountain sides. No wonder Baffin called this island "Land of Desolation." Seen from a distance, it always leaves this impression.

I have been in the hottest countries in the world during the hottest months of the year, and have experienced, in a full measure, the vicissitudes and lassitudes incident to such a climate; and yet, I have never returned from these travels without a keen sense of delight and gratitude for what I had seen and learned. I learned what wise provision kind Nature has made for the abode of man and beast in such trying climates, and what

she was capable of doing in the way of inducing the fertile soil, under the powerful influence of the tropic sun, to bring forth the most luxuriant vegetation, the most beautiful and fragrant flowers, and a rich harvest of the most luscious fruits, with little or no labor on the part of man. Man lives there at ease, depending largely on Nature's infinite resources in supplying him with the necessities of life, food, clothing, and shelter from the elements. I am now anxious to see and learn what nature has done for the people who live under reverse extremes of climatic conditions. I am satisfied that, even here, in the coldest of all inhabited parts of the world, Nature has provided wisely and well for the abode of man. To what extent my expectations were realized will appear by the results of my personal observations during my short but extremely instructive sojourn along and on the west coast of this empire of ice.

Wednesday, July 26th. After leaving the entrance to Godhaab Fiord, so suddenly and unceremoniously reached last evening, in the blinding fog, we sailed seaward sixteen miles, and then turned north and followed the coast at this distance, at half speed, owing to the persistence of the fog, until toward morning. At half-past seven o'clock this specter of the sea vanished sufficiently to warrant full speed; the coast was clear, and we looked for the first time upon the range of mountains which wall in the land of ice except where the leaders of the ice-cap have battered it down by floods of ice and mad torrents of water from the ice-cap and glaciers.

The first view of these mountains suggests the severity of the climate of the island. Stern and forbidding is their appearance, treeless, naked, gray, and black, their crevices, hollows, and ravines filled with snow, they rise, wall-like, from the very edge of the ocean, guarding the barren land they inclose against the fury of the sea and the grinding action of icebergs and pack-ice. They have performed this duty well. There they stand, in an attitude of defiance, but little scarred by the aggressive ocean, a strong reminder of

> "The everlasting hills are not changed like the faces of men."—*Tacitus.*

There is nothing attractive or inviting about them on first sight, their very appearance stamps them as hostile and inhospitable. Cold and unfeeling, they stare you in the face without a single redeeming feature expressive of sympathy or a desire to have you come nearer. Looking in an opposite direction, over the placid surface of the ocean, a more inviting picture unrolled itself. The water was literally covered with arctic birds, among which the guillemots, gulls and kittiwakes were most numerous; all of them busy in securing their share of sea food. The air was alive with birds, single in pairs, and in flocks, of all sizes, coming from and returning to their breeding places on the countless little islands which fringe the coast. These birds flew, fearlessly, over and on all sides of the passing steamer, unconscious of any sense of danger. Most of them had, probably, never seen such a

thing, and all seemed to know that the guns on board remained in their cases. About eleven o'clock the feeding time was over, and very few remained on the water, and nearly every one, seen flying, made a straight line for the rookeries on the shore.

Many whales were seen during the day, and one of them, a monster, came along the side of the ship, within easy reach of a harpoon. Only a very few icebergs came in view during the entire day, and all of them were slowly conveyed by the current near the coast. Not a glimpse of the sun did we get, and, for a considerable part of the day, the coast was hidden behind a bank of dense, immobile fog. During the afternoon we crossed the Arctic Circle at 66½° north latitude, and at that time the thermometer registered 42° F. We were reminded that we were now within the Arctic Circle which crosses Greenland a little south of Holstenborg. About seven o'clock, the fog disappeared and unveiled a panorama of beautiful alpine scenery, including the first of the numerous Greenland glaciers to our fog-tired and yet expectant eyes. The magnificent scenery, so suddenly unveiled by the rising of the fog curtain, resembled, very much, the wilderness of Alpine peaks as seen from Rigi Kulm or the summit of the Pilatus. The countless, white-robed mountain spires, some of the highest ones draped in clouds, and all resplendent in the dazzling rays of the evening sun, made a panorama of exquisite beauty. These mountains vary in height from 2,000 to 5,000 feet, the highest one being Sukkertoppen, a familiar landmark for the seamen who visit



HAULING A DEAD POLAR BEAR ON DECK

this coast. It was at the base of the Sukkertoppen that the famous arctic explorer, Doctor Kane, made his first collection of Greenland plants. Nature has her best artists in the arctic regions, as well as in the tropics, and I suppose that what we have seen so far of nature's arctic art only foreshadows her many *chef d'œuvres* which await us on our way farther north.

Thursday, July 27th. Made good time during the night as we are in the coast current, and a good southern breeze aided the propeller in increasing the speed of the "Erik." At 7 A. M., we had bright sunshine which, however, did not last more than an hour, when heavy clouds again obscured the sky for the balance of the day. We were thirty miles out from the coast, and the low range of mountains, bare and free from snow, appeared in the distance, overcast by a blue haze. The gentle southeasterly breeze barely sufficed to ripple the smooth surface of the sea. Very few birds, no whales, and but a few seal were seen swimming about in the water, exhibiting their round heads and inquisitive eyes, only long enough, above the surface of the water, to satisfy their curiosity and to take in a fresh supply of air, when they disappeared, not to be seen again. Numerous small icebergs were encountered during the forenoon. These, however, were but the advance guard of a large group of immense bergs we met about noon in Disco Bay. I counted, from the deck of the steamer, sixty-seven at one time, not including the small ones. Our course led through the center of this group of floating mountains of

ice. All of these icebergs had but recently left their birthplace at the head of the bay, and were moving slowly seaward. The elements had dealt gently with these youthful offsprings of some of the largest of Greenland's glaciers. Some of the largest must have been nearly a mile in length and from fifty to one hundred feet in height, as estimated by the captain.

The sight was an imposing one, as the sun made his appearance long enough to bring out the marble white of the worn part and the delicate blue and green of the fractured sides and submerged portions of the bergs. The group, taken as a whole, spread over many miles of the smooth, dark green water of the ocean and gave the appearance of a city of tents. Far away in the sea was the largest one, in the form of an immense fort, minus the pointing guns. Near it was another flat colossus that, in the distance, looked like a large exposition building. There were also icebergs which, in their architecture, resembled cathedrals, mosques, houses, huts and sheds. These, as a whole, might be taken for a fairy city on the arid plains of a great desert, with wide boulevards and narrow lanes separating the different buildings. Doctor Sohon was kept busy with his kodak to fix these glorious sights indelibly on the films.

"Emblems of purity and cold
Messengers from the frozen lands,
Cast in wond'rous forms without mold,
Seeking peaceful rest on foreign strands."

Disco Bay is a broad indentation of the west



A MONSTER VETERAN ICEBERG NEAR OMENAK FIORD

coast of Greenland, sixty miles in length at its base. The largest of the numerous islands in this bay is Disco, with Godhavn the seat of government of this district. We passed this well-known island near enough to obtain a good idea of its size, form and topography. The larger part of the island is made up of precipitous mesas, 1,200 to 1,500 feet above the level of the sea, cut on the seashore by deep ravines and magnificent fiords. These mesas or mountain plateaus are overtowered by numerous peaks, rising to an altitude of 3,000 to 4,000 feet, and much of the interior of the island is buried underneath an ice-cap. We passed the island late in the afternoon and during the evening, and our eyes feasted on the wild mountain scenery illuminated by the retiring sun. In the east, toward the mainland, the sky was painted a light salmon color, which, gradually and almost imperceptibly changed into the pale blue of the evening sky, bordering on the margin of the gray clouds which hovered over the island. In the west, the sun was high up in the firmament, trying his best to penetrate, with his arctic rays, the ragged sheet of clouds. An iceberg of medium size, far out on the ocean, caught a glimpse of the sun and turned into a sapphire of prodigious size, set in the dark blue of the sleeping ocean.

The usual variety of sea gulls sailed through the calm evening air, like white and gray kites, and flocks of eiderducks and guillemots floated lazily on the smooth surface of the water like gaily painted decoys. When within easy gunshot range, they

dived, head foremost into the water with the speed of lightning, leaving a succession of expanding rings on the water, indicating the point of their disappearance, to reappear in a few minutes at a safe distance from the ship, which had disturbed their search for the evening meal.

The island, from its appearance, seems to have risen in one sudden, great effort from the bottom of the ocean, as the perpendicular walls of basalt rock rise abruptly from the ocean to the snow-clad plateaus above. One of the larger glaciers was seen to project some distance over the surface of the sea, and is ready, at any time, to contribute a new iceberg to the army of bergs congregated along the west shore of the island. The ice-cap sends down toward the sea, a number of leaders in the form of glaciers, but few of them ever reach the abyss of the briny deep. Far out in the ocean could be seen a foaming jet of water thrown, perpendicularly into the air, a distance of at least fifty feet; then another geyser-like jet, some distance from the first. These jets, from the two different points, were repeated every few minutes and the whalers on board soon ascertained that these fountains were played by two sperm-whales, the largest of all the ocean animals, the water mastodons of the present age. One of these animals rose high enough to give us an opportunity to judge of the enormity of its size. The black back looked more like a small island than a part of this monster of the sea. This evening, at a latitude of little more than 70° north, which we are crossing, is our last chance to see a



A VIEW OF BAFFIN LAND—TAKEN NEAR CAPE HAVEN

sunset until on the homeward trip we reach again this latitude. Unfortunately, the western horizon is heavily clouded and the setting sun at 11:15 P. M. is in hiding. In the east, where the sun will rise about two hours later, the sky is clearer and the few fleecy clouds are tinted a bright rosy hue, announcing the last sunrise for this time of the year. The space ahead of us, separating the last sunset and sunrise, seems to appear astonishingly small, and will be wiped out to-morrow by the midnight sun. The arctic summer has begun; the temperature, at noon today, was 55° F., and at midnight, as I am writing this, it is 49° F., average humidity for the day, 77½ per cent.

Friday, July 28th. Contrary to our expectations, and to our great disappointment, the day opened gloomily with sky overcast and a drizzling rain. The coast of Omenak Peninsula, fringed with numerous islands, is barely visible through the misty air. The weather today reminds one of our drizzling March days.

"It rains! It rains! It rains all day."
—*Shakespeare.*

As a matter of safety, the captain sailed farther seaward, and when out of sight of the coast continued the journey at half-speed until one o'clock in the morning of next day. We are now in Baffin Bay, west of Upernavik, the northern limit of the Danish settlements, and well on the way to the heart of the arctics, followed by so many daring explorers in search of the pole. Davis, in 1587, ascended, in the strait which deservedly bears

his name to latitude 72° 12′ north, where he found the variations of the compass to be 82° west, or nearly the same as at the present time. In 1616, Baffin advanced, in the same waters, as high as 78° north latitude. Hudson, nine years before, had penetrated in the Greenland seas to latitude 82° north, to the northeast of Spitzbergen. In view of the advances made in the direction of the pole at such early periods, and by the use of small sailing vessels, it is somewhat mortifying to notice how little progress has been made in geographical discoveries since those early and intrepid adventurers explored the arctic regions with their frail barks, which seldom exceeded the size of fifty tons. Captain Wilson, about the end of June, 1754, having traversed floating ice from latitude 74° north to 81° north, found open water at 83° north, and, not meeting with many whales, returned.

It was our captain's intention to set the course of his vessel for Cape York, but as he could not make out our exact position, we drifted lazily along at the rate of less than four miles an hour. It was a monotonous, dreary, and most disagreeable day. Even the sailors lost their customary cheerfulness and the captain's mind was visibly disturbed. It is bad enough to be lost on land, but it is vastly more so on the trackless ocean in rain and fog, near a dangerous coast, and among icebergs and possibly floating ice. The question, "Where are we?" became a burning one for the third time since we left Sydney. An overcast, weeping sky, mist and fog, a falling barometer, a chilly atmosphere, and wet deck, coupled



INTERIOR OF BAFFIN LAND, BETWEEN CAPE HAVEN AND CYRUS FIELD BAY

with the uncertainty of our location, made up a combination of things not congenial to physical comfort, and certainly not conducive to a happy mental state. Forced idleness, under such depressing conditions, is painful, and the loss of a whole day, discouraging. *Que faire*? I did the utmost in my power to make the best possible use of my time by reading and writing. I envy the people, who, under such circumstances, can while away the burden of time by reading novels or playing cards, something out of the question with me.

The first appearance of the midnight sun, to which we had looked forward with so many pleasant anticipations, was a veritable *lucus a non lucendo*. The sun was there at the appointed time, but was hidden behind a bank of impenetrable clouds. It was as light as at noon, but we were sadly disappointed in not seeing the king of night and day face to face. It is in this latitude that the mariner's compass shows pronounced symptoms of nervousness. The mass of people have an idea that the compass invariably points true north. This is the case at the equator, but north from that imaginary line it deviates toward the west, and about where we are now, on a level with Upernavik, about latitude 75° north, it points directly west, instead of north, and the mariner must sail east by the compass if he intends to go north. At this latitude, the compass, is restless, vacillating, and, when it comes to a standstill, points toward the magnetic pole, which Captain Ross, in 1830, located in the northern part of British America at latitude 70° 5′ north and longitude west

96° 46′ 45″, being only a minute less than 90°, the vertical position, which would have precisely indicated the polar station. The longitudinal needles, when suspended in the most delicate manner possible, did not show the slightest tendency to move. He looked carefully for something that would account for the magnetic attraction, but found nothing. The uncertainty of the compass in this latitude and farther north, and the frequent fogs, render navigation in these regions more difficult and dangerous than anywhere else.

Saturday, July 29th. Day promises well. Ship under full sail; frequent glimpses of the sun; sky clearing; mist dispelled; sea calm; icebergs few; birds more numerous; land still out of sight; entering Melville Bay. It is in Melville Bay that the sailors expect to battle with floating ice during this season of the year. Delays by pack -ice here are of common occurrence and are often of days and even weeks duration. Bright sunshine at short intervals cheered the afternoon and imparted a more pleasing aspect to the marine scenery, the choppy sea, fleeting clouds, and numerous flocks of birds. The indications were that we would see the midnight sun. In this we were again disappointed, as toward evening the sky became overcast and at midnight it was as light as any time during the day, but the sun remained in hiding. Toward morning a drizzling rain and a dense fog made navigation again difficult.

Sunday, at eight o'clock in the morning, we passed through a field of pack-ice. The strong, steel-clad prow of the steamer shoved the closely



ONE OF THE TENTS OF LITTLE OMENAK

packed pans aside and, where this could not be done, piled them up in heaps on the side of the ship. The shocks imparted to the vessel by the striking of the large masses of ice, and the grinding noise, gave us at least an idea of what it means to sail through pack-ice. Passing clouds of dense fog obscured the outlook beyond the distance of a quarter of a mile.

Colossal icebergs surrounded us on all sides. We counted seventy at one time. Our exact location was in doubt, but from the character of the fog, and the direction and arrangement of the field of pack-ice, there was no question of the proximity of land. Several of the pans of ice showed signs that they had recently been occupied by walrus. The serious question again arose, "Where are we?" At nine o'clock, fogs and clouds disappeared sufficiently for a few minutes only to enable the officer on the bridge to see land ahead. Great caution was necessary now. At half speed, the "Erik" groped its way in the direction of the coast, in a thick fog, among icebergs, and through fields of pack-ice. The coast, when it came into full view, was mountainous and, through the foggy, hazy atmosphere, we counted no less than six glaciers, one of them at least two miles in width, with a wall-like shining face, showing where an immense iceberg had recently broken off. Our aim was Cape York, but the land we saw could not be identified as such. A rough sea, with rain and fog, made it unsafe to approach and follow the coast line, as is usually done by expert mariners in this region. The engine was stopped and the ship

allowed to drift among the icebergs. Steam was turned on from time to time to avoid collision with icebergs and to keep at a safe distance from the shore. Our situation, unpleasant and discouraging as it was, was made more so in the evening when a severe gale lashed the ocean into foam-crested, angry waves. The little ship groaned, tossed, rolled, and pitched at a fearful rate. Movable things were thrown about in confusion, and the noises created thereby contributed much to the existing confusion on deck and in my cabin.

The deck was swept by the furious waves, and it soon became necessary, in order to keep control of the ship, to sail at half speed up and down the coast, and at a safe distance from it, until the weather would permit it to come sufficiently near to identify the most important landmarks. It was a dreadful night. No, it was not night, as the midnight sun had turned night into day. Although the sun was not shining, it was as light at midnight as any time during the day. This was our greatest consolation, as, had it been dark, the danger would have been vastly increased. No one slept much that night. Sailing up and down a strange coast, in such a boisterous sea, amidst numerous icebergs, and occasionally through fields of pack-ice, is a trying experience. I love an active ocean and a little ship that responds gracefully to the waves, but when the rolling and pitching, and the cork-screw gait of the ship become so severe that walking, and even standing, without a firm support, are made unsafe or impossible, the limits of the poetry of sea motions



TABLE MT. AT NORTH STAR BAY (NOAH'S ARK). SAUNDERS ISLAND IN DISTANCE

have passed. This was the case that night. The temperature next morning had fallen to 42° F. At half-past eight, the sun appeared, but only for a very short time. Gale, clouds, and fog continued persistently, and we were obliged to keep out at sea. Sailing at a lame gait north, then south, backward and forward between icebergs, enveloped in fog, and under an overcast, leaden sky, we are:

> "In thrilling regions of thick-ribbed ice;
> To be imprison'd in the viewless winds,
> And blown with restless violence round about
> The pendent world."—*Shakespeare.*

We now could appreciate well what the Psalmist said:—

> "The sun shall not smite thee by day, nor the moon by night."—*Psalms CXXI, 6.*

As we have had only a few short glimpses of the sun since we left Sydney, two weeks ago, we miss very much, the gentle moon and starlight, banished now by the conquering midnight sun. Fog, mist, rain, and a cloudy sky have been meted out to us on this trip far above the average amount. Some of our sailors who have frequented the west coast of Greenland for the last twenty years say they never met such disagreeable weather before during this season of the year. Occasional fogs are expected, but almost continual fogs for nearly two weeks, and so little sunshine, is an almost unheard-of experience. At noon, the fog and clouds cleared away and the officers recognized a conspicuous landmark of the coast, Conical Island, off Cape Atholl, and later Wolstenholm Island, Dalyrymple

Rock, Eider Duck Island, and lastly Saunders Island; all of them at the entrance of Wolstenholm Sound. Instead of being at Cape York, we were agreeably surprised that we were thirty miles north of that point, and at the very gateway to our first destination, North Star Bay. Cape Atholl appeared in all its arctic majesty, and the nearby Petowik Glacier, one of the largest on the west coast of Greenland, was in full view, besides a number of smaller ones. It was a source of great comfort to us all, and especially to our captain, to know that we were on familiar grounds and in face of reliable guides to North Star Bay. The course of the ship, lying between the main land and Saunders Island, after rounding Cape Atholl, was directed toward North Star Bay. From now on, until we reached North Star Bay, we were constantly in view of the great inland ice and numerous glaciers, large and small. These and the snow-clad mountain peaks announced to us that we were nearing the very heart of the arctics.

Petowik Glacier is an enormous river of ice, and a liberal contributor to the iceberg family. The mountain on one side of the fiord, occupied by this glacier, is worn away by the friction of this enormous mass of moving ice, and, by this gradual action, has been changed into a steep, almost perpendicular wall, while on the opposite side of the fiord there are no indications of this grinding action. The face of the glacier, projecting far over the surface of the water, we estimated at five miles in width, and it presents all the appearances of recent fractured surfaces at different points, caused by the



THE FACE OF PETOWIK GLACIER—NUNATAKS IN THE REAR

breaking off of icebergs. There was now a sudden change in the weather. The bright, warm, beautiful sunshine, the clear atmosphere, the smiling light blue, friendly arctic sky, and the frequent rainbows, in the clouds we left behind us, made up a most fascinating scenery as we entered the calm waters of Wolstenholm Sound. This broad sheet of water teemed with bird-life. The water was literally covered with the little auks, eider ducks, and several species of gulls, and the air was alive with these arctic birds, hurrying to and from the near-by island rookeries.

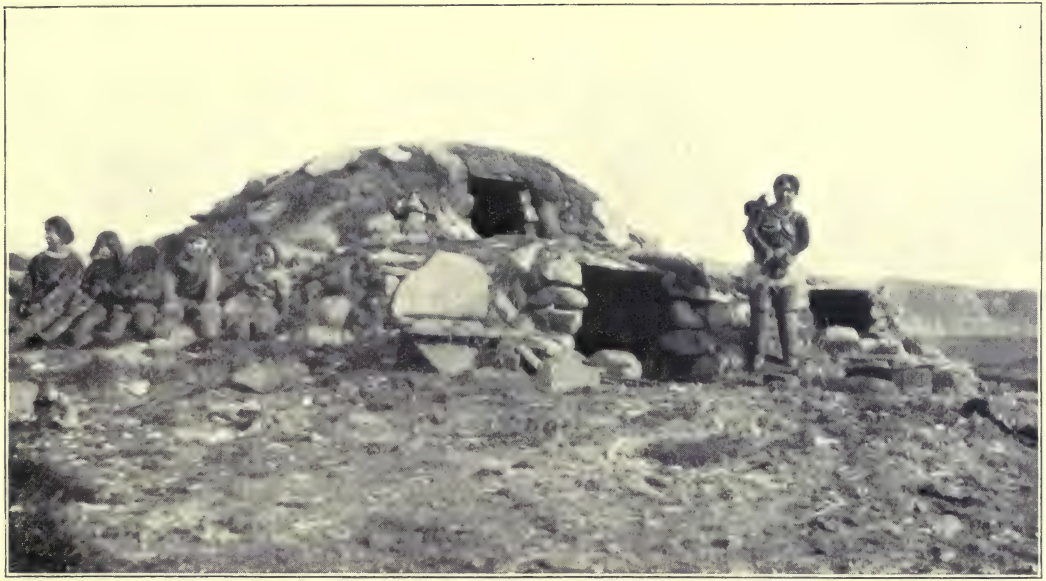
We reached the entrance to North Star Bay without any difficulty, and, at eight o'clock in the evening, the "Erik" was securely at anchor near where the ill-fated "North Star" had spent her last winter quarters. As there was formerly a settlement of natives near Cape Atholl, the captain tried to attract their attention by a few fierce blasts of the whistle, but no signs of life could be seen on shore. On entering North Star Bay, the same signal was given to inform the natives at North Omenak, another settlement near the place of our anchorage, of our presence. At about eleven o'clock in the evening, a number of natives could be seen on the summit of a bluff, near their settlement. The sun was shining brightly and, seen through glasses, the native figures, about two miles distant, appeared like so many silhouettes. Men, women, and children were grouped together, some walking, some standing, and others sitting on the large boulders scattered over the surface of the ground. A boat

was lowered and sent ashore. It soon returned with a full cargo of natives, principally women and children, accompanied by five kayaks, which brought the able-bodied hunters of the settlement.

It was a motley crowd as they climbed up the ladder and landed on deck. I distributed candy to old and young, and all seemed to enjoy this dainty article of civilization which, perhaps, most of them had never tasted before. With the exception of a sick man, and one to take care of him, the entire settlement, about twenty in number, spent the night on deck, alternately eating and sleeping. Pork was their favorite dish. This settlement evidently had to contend with a severe winter, or the game must have been scarce, as the clothing of all the members of the tribe was old and well worn and, as a later visit to their tents showed, their fur and food supplies were scanty. Five of the women had infants which they carried in their hoods. It was my first opportunity to see real Eskimos. I improved this and all subsequent opportunities to study the character and habits of these interesting inhabitants of the polar regions, so far but little influenced by civilization.

The Arctic Oasis

The west coast of Greenland, from Cape York to Etah, has been called by Peary "The Arctic Oasis." I was given an excellent opportunity to see and study this part of the Greenland coast, and can only agree with the fearless explorer, who is more familiar with it than any other foreigner, that it merits this



IGLOO AT LITTLE OMENAK AND NATIVE WOMEN

euphonious term, notwithstanding its high latitude, extending, as it does, from latitude 76° to 78° 40′ north, covering a distance of about 140 miles by a straight coast line. It is on the narrow strip of land in these latitudes, between the sea and the ice-cap, that the only real Eskimos reside. It is here where the real heart of the arctics is located; it is here where, during the short summer, the sea, air, and coast teem with animal life; and, finally, it is here where the midnight sun, by its magic influence, awakens from the scanty soil a vegetation that astonishes the visitors who come to this part of Greenland with the expectation of finding nothing but barren mountains, ice, and snow. It is here where, during the short summer, the climate is delightful and invigorating, more especially along the inland coasts of Wolstenholm Sound and Inglefield Gulf, inland arms of the sea, where the atmosphere is dry, fogs rare, and warm sunshine continuous. Truly this part of Greenland, bounded on one side by the everlasting ice and on the other by Baffin Bay and Smith Sound, well deserves the name applied to it by Peary, "Oasis of the Arctic Region." In this paradise of the arctic region, it was my good fortune to spend a month, most of the time in company with the distinguished explorer.



OLD IGLOOS—NORTH STAR BAY

Low door to right is the meat house

IN NORTH STAR BAY

At twelve o'clock midnight, on the day of our arrival, the midnight sun shone brightly from its lofty position in the cloudless, starless sky, reflecting his warm, friendly rays on the silvery bosom of this arctic harbor and the unfeeling ocean of the inland ice. Auks, guillemots, eider-duck, and gulls, which have here one of their favorite feeding grounds, paid little attention to our "Erik" or to the activity displayed by natives and crew on her deck, a part of which was still buried under the cargo of coal. These natives had not seen a vessel for three years; hence our visit to them was a very welcome one.

The novelty of the surroundings, the quaint, interesting natives on deck, and the splendor of the midnight sun were well calculated to chase away sleep the balance of that memorable day-night.

The next morning inaugurated a charming arctic summer day. The warm sunshine, gentle breeze, and blue, cloudless sky reminded me of one of our clear, cool days in the month of June. The water in the bay was as smooth as a mirror. The harbor is hemmed in by an embankment from six to ten feet in height, the face of a low plateau or wide valley, the bed of a great glacier ages and ages ago. The glacier has left numerous footprints, which centuries have failed to efface, in the form of boulders, gravel, and moraine; the latter has furnished enough

soil for the arctic vegetation, grass in abundance, and quite a variety of flowers.

This wide valley is coursed by two streams which drain the ice-cap and a number of small glaciers. One of these streams is large enough to entitle it to the name of river. Owing to the gradual, steady incline of this river from the coast to the ice-cap, a distance of about twenty miles, the current is very swift, and is broken at short intervals by roaring, foaming rapids. On each side of the valley rise mountains from 1,000 to 2,000 feet high, surmounted by a rock-strewn plateau. From these plateaus, the valley beneath, with its turbulent streams and numerous little fresh-water lakes, presents a magnificent sight. Much of its surface, especially on the west side, is covered by tundra with moss, grass, and an abundance of flowers. The great ice-cap, with its numerous nunataks along its edge, rising like black monuments above the surface of the sea of ice, although twenty miles away, yet appearing in the deceptive, clear atmosphere as though it could be reached in an hour's easy walk, can be seen stretching inland by a gradual incline for eighty to one hundred miles.

One of the first things I discovered in looking at the plateau coast from the deck of the steamer, was a large pile of stones on the high bank near the mouth of the river. It was evidently either an abandoned igloo or a sailor's grave. I visited the place and found it to be the grave of a white man, probably a sailor of the ill-fated "North Star" which was crushed by the ice. A high mound of stones



GREENLAND INLAND FRESH WATER LAKES

Near North Star Bay

on the solid granite rock indicates the burial-place. Neither man nor animals have desecrated this solitary grave. What deprivation and suffering the poor man under those cold, unfeeling stones would relate could he but speak! Here he rests, far away from home and relatives, less than 700 miles from the pole he, and those with him, sought to reach. The icy wind in the sunless winter, and the moaning waves in summer continue to chant the funeral dirge:

AN ARCTIC SAILOR'S GRAVE

His work is done; he rests
 Free from hunger, care, and pain,
Near yonder lofty crests,
 Without honor, without fame;
On the bleak arctic shore
 He sleeps forevermore.

Far from home, on bed of stone,
 Safe from reefs, storm, and gale
He dwelleth all alone,
 Wrapp'd in his garb of sail;
On the bleak arctic shore
 He sleeps forevermore.

His courage and his deeds,
 His many hopes, his fears,
His sufferings and needs
 Are forgotten, cause no tears
On the bleak arctic shore
 He sleeps forevermore.

All honor to this grave
 Of stone on granite floor,
Where lies a hero brave,
 Forgotten, without lore;
On the bleak arctic shore
 He sleeps to wake no more.

The most conspicuous landmark of this harbor is a high rock jutting out from the main land and resembling in outline, very much the old pictures representing Noah's ark. It is behind this rock, and the narrow, stony ridge connecting it with the mainland, that the settlement of the natives, North Omenak, is located. I visited this little hamlet of tents the day after our arrival. It is made up of five sealskin tents and inhabited by twenty-five persons, including the unusually large number of infants. We were greeted at a distance by the howling of about thirty Eskimo dogs, vicious-looking brutes, fortunately for us, safely anchored to large stones with stout walrus-hide ropes. They did their best to release themselves from their fixed position and meet us more than half-way. The Eskimo dog has no liking for foreigners, and makes no secret of his antipathy to *Kablunahs* (white men). These native dogs are nothing more nor less than half-tamed arctic wolves. They are about the size of our timber-wolves and resemble them very closely in the appearance of their fur, eyes, tail, ears and nose. About the only difference in the shape of their skull is a slight increase in the width of the frontal bone. The predominating color is gray, but white, black and yellow are frequently seen. Most of them are spotted. Peary is of the opinion that the present breed of dogs shows decided evidences of a mixture of races, brought about by the Newfoundland dogs carried to this part of Greenland by Doctor Kane more than fifty years ago. They are miserable-looking brutes, retaining, in a large meas-



ESKIMO DOGS

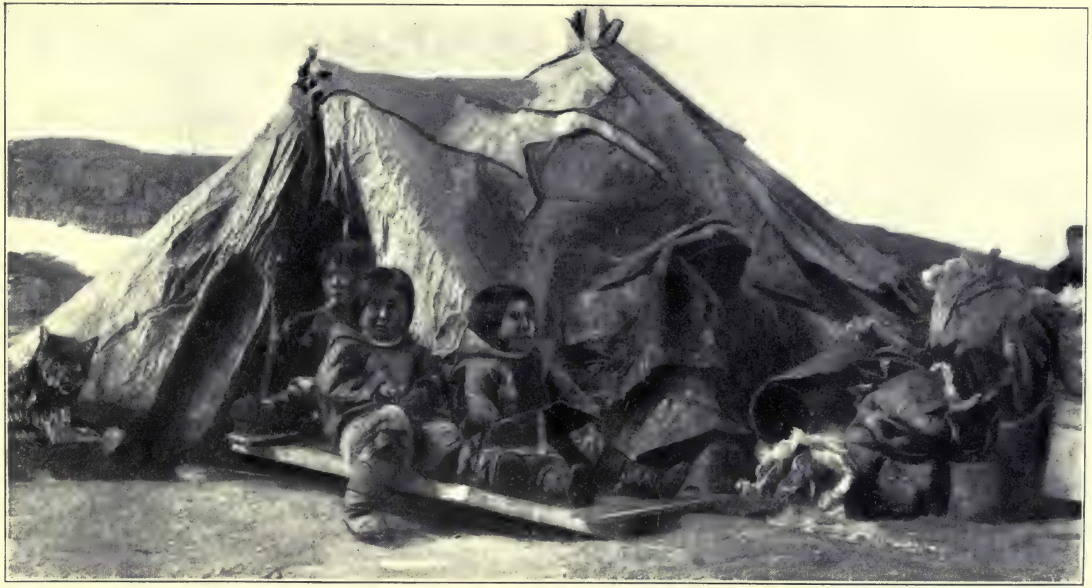
ure, the savage nature and habits of their ancestors. Howling, barking, and fighting are their pastimes. Fighting among themselves is their specialty. The short time we remained in the settlement, several vicious fights were going on, without any provocation, between the dogs picketed close enough together to enable them to reach each other. All of the foreigners who have visited these regions were impressed with the cruelty with which the natives treat these animals; but as soon as they became more familiar with the savage nature of these only half-domesticated wolves, they could understand the reason for their apparent brutality.

The long whip, which the Eskimos know how to use so effectively, is the only peacemaker when a fight takes place, and is the only thing for which they show any respect and the only inducement to make them work. Doctor Kane has this to say of the Eskimo dog-whip: "The weapon has an exercise of its own, quite peculiar, and as hard to learn as single-stick or broadsword. The whip is six yards long, and the handle but sixteen inches." Two packs were picketed close to a little fresh-water pond, and, about half the time, the dogs ran about in the shallow water. This pond, in which were also four dog sledges, furnishes the water supply for the community, one of the many indications that the Eskimo has no use for cleanliness. Bathing and washing of face and hands are never practised. When the white man gives him soap, he may eat it, but he cannot be made to use it for what it is intended.

The Eskimo is the filthiest of all human beings

that I have ever seen. He is vastly more filthy than the filthiest of our domestic animals. Nearly every animal pays some attention to cleanliness; many of them, like the squirrel, birds and insects, are even dainty; but here is a creature absolutely devoid of the sense of cleanliness. With their hands they may rub off the coarse dirt which has accumulated on face and hands, but they will not wash. The greasy, dirty neck, frictioned by the hood, is the cleanest part of their filthy body. In every tent is a small stick of wood or bone, about two feet in length, to one end of which a bunch of hair, from the polar bear, is attached; and with this rudimentary brush, the vermin which has collected between skin and clothing is fished out. The reader may experience an unpleasant sensation in the region of the stomach, when I tell him that the vermin thus caught is eaten as a delicacy, uncooked, and squirming, as I have myself seen done and as related to me by many other eye witnesses.

The smell about every Eskimo is, to the uninitiated, extremely disagreeable and repulsive. When the natives boarded the steamer the first evening, this smell nearly sickened me, and, as I have become habituated to many bad smells during my professional career, this means a good deal. But to get a correct idea of the filth and squalor these people live in, you must go inside one of their tents or igloos. You can scent an Eskimo at a distance, if the wind is in the right direction; but when you enter a tent the nerves of smell are shocked, even after a preliminary inspection of its surround-



TUPIK (TENT) AND ESKIMO CHILDREN

ings. In the immediate neighborhood of the tent are the repulsive dogs, human and animal excrements, putrified entrails of animals, skins in process of curing by chewing and drying, bones, representing the entire anatomy of different arctic animals, and ropes of fresh walrus hides stretched between stones to which they are securely fastened, undergoing a slow process of drying, preparatory to their being made pliable by chewing—a task always assigned to the female part of the family. Lying scattered around are walrus tusks, narwhal horns, dirty dishes made of soapstone, harpoons, spears, primitive tools—all dirty and plastered with grease. The smell, even here, is bad enough; but now let us enter the tent. You have to bow low to enter through a slit in the small, conical tent of sealskin, in itself not an attractive sight, and where no provisions whatever are made for ventilation. Air is excluded by fastening the tent all around with stones which effectually prevent the air from entering below, and there is no opening for it to escape on top. As these tents do not exceed eight or ten feet in diameter, and are usually occupied by at least five persons, it requires no stretch of imagination to judge of the character of their inside air. The stench is simply indescribable. Five minutes was enough for me. But let us look around and see. The tent is made of sealskins, deprived of their hair by scraping. The common family bed is in the rear of the very limited space, occupying, as it does, at least one third of its interior. It is made up of ill-smelling bear, seal, and reindeer skins

on the bare ground, and fitted up in a most disorderly manner. The first half of the space is the kitchen, sitting, and dining room. The lamp and stove, made of soapstone, is half full of dirty seal-oil. In one corner is a filthy tin vessel containing well-ripened blubber, a dish from which our dogs would run away and hold their breath, but which is relished by the inmates and is eaten raw like we eat oysters, but without salt or any kind of condiment. In a very dirty tin dish is a piece of black seal meat fried crisp. Near the door are the putrid entrails of a seal on the bare ground and pieces of liver, both of which are regarded as delicacies and eaten raw. In whatever direction the eye was turned, there was dirt, dirt, everywhere.

I was very anxious to learn how the natives light fire when they have no matches. An expert in this business was summoned. He produced a piece of brown, dried moss about the size of an ordinary cake of toilet-soap, tore a small rent in it, and filled it with a small pledget of white, silky down, the plumes of a species of grass, the *poa arctica*, and then took a piece of hard black stone and struck it repeatedly with the back of a knife, which made the sparks fly until one of them ignited the white pledget, from which the moss caught fire and the object lesson was finished to the great satisfaction of the visitors and the delight of the group of natives who witnessed the performance with more than ordinary interest, a proof to us that fire-making, without matches, is not a very easy matter and requires the skill of an experienced hand. The



TWO INTERIORS OF TUPIK—FLOOR AND BED

wick for the oil-lamp is made of moss, and the heat from this source suffices to heat the winter quarters sufficiently for the comfort of the inmates.

In one of the tents I found the only sick man I saw among the Eskimos. He was about thirty years old and was lying on his back, leaning toward the left side, on a reindeer skin, perfectly helpless; his left elbow-joint swollen and exceedingly painful and tender to the slightest touch, resting on a stone covered with fur. His lower extremities were contracted, wasted, and all of the joints stiff. He was emaciated to a skeleton, with a hectic flush in his face. With a cold pipe in his mouth, his eyes were fixed and gazing at the top of the tent. His mind appeared to be wandering. It was evidently a case of chronic rheumatic arthritis and Commander Peary informed me later that he had been in this condition for twelve years. Although helpless and the father of a family, he is well taken care of by his little tribe. Near the hamlet of tents I discovered three Eskimo graves in the form of low mounds of stone, and in length exceeding that of an adult. The Eskimo, unlike the North American Indian, fears death, and the very mention of this word (*Sinipo*) he avoids as much as possible. Nearly all over Greenland, the soil is too shallow for the excavation of a grave, the above-ground burial is, therefore the one practised. Doctor Kane describes it as follows: "They place the body in a position of repose, the knees drawn close to the body, and enclose it in a sack of skins. The implements of the living man are then grouped around him; they

are covered with a rude dome of stones, and a cairn is piled above. The grave is never disturbed." The graves I saw here and elsewhere were so low that the bodies must have been placed in a lying position. The funeral pile was so low that in one of the graves I found nearly all of the bones exposed, which gave me an opportunity to secure a real Eskimo skull, which I brought with me among other equally interesting souvenirs to Chicago. The uncovering of the remains was undoubtedly done by wild animals, or the nearly wild dogs, by rolling away the two or three layers of stones. This was evidently a recent grave, as I found a number of bones to which the flesh remained attached.

From the deck of the "Erik," the land in sight appeared bare of all kinds of vegetation and was made up, as far as we could see, of rock strewn with boulders. On landing for the first time on the uninviting, forbidding soil of Greenland, I was agreeably surprised to find quite a rich and varied vegetation. Between the stones scattered over the surface of the granite-rock, a little soil had accumulated, and from it had sprouted little tufts of grass and quite a variety of flowers. One of the first flowers that greeted me was the poppy of the arctics (*papaver nudicaulis*), a modest little yellow flower with bare stalk and palmately incised, basal, velvety leaves. The stalk is from four to six inches in length, and the yellow variety, to the casual observer, appears, on superficial examination, very much like our butter-cup.

The first day I spent on land, crossing valleys,



NATIVES, TENTS AND DOGS

climbing mountains, and walking over the tundra, I found, to my utter astonishment, at least fifteen different kinds of flowers, yellow, white, red, purple, labiates and composites, all small and absolutely devoid of anything like fragrance. The marshy soil (tundra) in valleys and on mountain plateaus was green with grass and mosses,—and it was in these places I found a small species of mushroom and the sorrel, the latter in the stage of budding. I searched long and carefully for the dwarfed birch, which is the only tree which follows the willow to the northern part of Greenland, but failed to find it. The willow is here a dwarf, from one to six inches in height, and was at the time of my visit in full blossom, bearing, according to its size, from one to six catkins. When this hardy shrub exceeds two or three inches in height, it becomes a creeper, seeking protection against the intense cold of the arctic winter under a mantle of mosses. This region is very rich in different species and varieties of mosses and lichens, a very paradise for these low forms of vegetable life. The chromogenic lichens paint rocks, boulders, and pebbles in bright colors. Some of the stones on their exposed surface appear as though they had been sprinkled with blood; others were checkered with spots of orange yellow; and some showed blotches as black as the blackest of printers' ink. The hardy little flowering plants have here only a very short time in which to blossom and propagate their species. It is remarkable what resourceful Nature can accomplish under the most uncongenial climatic influences in the way of

preservation of vegetable life. The tiny flowers, some of them barely above the soil and not larger than the head of a pin, grouped in bunches red and white, peep brightly through the wilderness of the protecting moss; but

> 'To me the meanest that blows can give
> Thoughts that do often lie too deep for tears."
> —*Wordsworth.*

Among the more familiar flowers I found the dandelion, two kinds of watercress, and saxifrages. Except the moss and grass-covered tundra, with its large isolated boulders, the valleys and mountain plateaus are covered with boulders, stones of all shapes and sizes, flat, irregular, and round, and tablets of slate. The time-worn, aged faces of the granite and sandstone rocks fissured in a straight direction, perpendicularly and horizontally, have been blasted by winter frosts and summer thaws, and it is by this slow process that the enormous boulders are split off from the mother rock and are carried away from it by their own momentum, or by the agency of glaciers and the spring torrents, to their final resting-place.

It was the intention of Commander Peary that the "Erik" should reach North Star Bay a few days before the "Roosevelt," to give me an opportunity to hunt reindeer and ptarmigan, as it was known that this part of Greenland was a good reindeer country in the past. Grass and fresh water are plentiful here, and the whole lay of the country is an ideal one for these two kinds of game.

It was not known that at this time we should

find a native settlement here, and in that event there could be no doubt as to the prospects of a good hunt. The presence of so many natives and their numerous dogs threw at once a shadow over the outlook as far as hunting game on land was concerned. On the first day's inland trip, which covered at least ten miles across valleys and up and down mountains at least 1,500 feet in height, we failed to find any recent signs of reindeer, and the absence of any kind of bird food explained, satisfactorily, why the ptarmigan had left this part of the island. Of land birds, I only saw a few snow-buntings and two ravens. Two arctic hares were seen at a great distance by means of glasses, but the absence of anything like a cover made it impossible to get within gunshot range.

From one of the mountain plateaus, we obtained a magnificent view of the great inland ice-cap rising in a gradual slope in an easterly direction. Coated every year by new precipitations, which at once congeal and form a part of this gigantic mass of ice, replacing the losses inflicted by fierce winds and thaw, this ice-cap, with its pure, crystal ice and virgin snow, is the very ideal of purity. Look at this smooth ocean of ice, dazzling in the bright sunshine under the blue, arctic sky, and the pure white snow in the ravines on the mountainsides and clothing the highest peaks, and it will become apparent to us why poets for ages have selected these two products of cold as emblems of purity and chastity.

> "Be then as chaste as ice, as pure as snow; then thou shalt not escape calumny. Get thee to a nunnery, go."—*Shakespeare.*

"White as chaste, and pure
As wind-fanned snow."
—*Beaumont and Fletcher.*

Even this thick crust of ice is not deep enough to hide the highest mountain peaks along its border which project from the glassy surface in the form of black, conical islands, called by the natives *nunataks*.

Through glasses, we could detect great crevasses which extend for a long distance inland from the border of the ice. It is these crevasses that render the first part of the journey over the ice tedious and dangerous. Of insects, I saw a few very small mosquitoes and two or three greenish flies when we rested on the sunny and leeward side of a high rock during the early part of the afternoon.

THE MIDNIGHT SUN

I have seen the midnight sun from North Cape, Norway, and was deeply impressed with the beauty and solemnity of the midnight hour; but even the sun must have worthy objects upon which to shine in order to paint pictures that will charm the eye and agitate the soul. To see the midnight sun in all his glory, we must see him here where the liquid and solid oceans combine to form a double mirror worthy to reflect his bewitching rays during the solemn midnight hour.

I have seen the midnight sun two successive nights before landing from the deck of the vessel. The rim of the golden disc touched the summit of the promontory, "Noah's Ark," which stands directly in line from the point of observation to the royal visitor of night. Below the disc of gold were the dark outlines of the stupendous rock and its shadow thrown on the smooth surface of the bay populated with icebergs and alive with eider-ducks, guillemots, kittiwakes and a variety of gulls. Above the smiling disc, with a background of delicate blue, sailed, lazily, fleecy clouds like moving bridal veils with their borders tinged a rosy hue. In the foreground was spread out the rippling waters of the harbor, resplendent in the golden hue reflected upon it by the orb of gold, and in the distance the great ice-cap in full Alpine glow. A panorama of such majesty and exquisite beauty no artist can repro-

duce with anything approximately equal to the original; and no author can describe it and do justice to nature's miraculous works of art. Even the most unappreciative of nature's inexhaustible artistic displays must become spellbound when face to face with the panorama, painted on land and sea, by the midnight sun in the solitude of the far North. I revel in the anticipation of seeing, night after night, for the next three or four weeks, the glorious midnight sun from different points in the very heart of the arctics.

THE MIDNIGHT SUN

"Mighty ruler of day and night!
Conqueror of cold, ice, and snow,
We greet thee in this land of blight,
Upon which you so much bestow.

Glorious orb of night and day,
Shine brightly on the icy shore;
Your choicest gifts do not delay
Where waves and ice forever roar.

Life and soul of whole creation,
Shine long and warm where now you are;
Warm friend of every nation,
Keep up with ice your bloodless war.

Light of heaven so near the pole,
Breathe warmth and life while you are here,
Cheer many a discouraged soul,
And grant your favors every year."

In this latitude, the midnight sun shines for 110 days and offsets the gloom of the midwinter night, lasting for 118 days.

Wednesday, August 2d. Yesterday was a beautiful summer day, the thermometer in the sun, rising



ESKIMO WITH WOMAN IN KAYAK

Canoe made steady by two inflated sealskin balloons

to 80° F., the highest temperature recorded during the entire trip. I was out all day hunting, and even a light sweater felt uncomfortably warm. This morning, a sudden gale set in from the north with chilly breath from the region of everlasting ice and soon converted the smooth, peaceful waters of the bay into angry, foam-crested waves. The wind is so strong that it required two anchors to hold the little steamer in place. I wished to go on shore, but the captain insisted that none of his life-boats could reach it with any degree of safety. The sky is overcast and the thermometer has fallen to 42° F. and a very dense fog has shut out familiar, near-by landmarks. The natives must have foreseen this storm as all of them, with the exception of an old man, his wife and babe and two boys, left the ship last night without giving any explanation for their sudden departure. These children of nature are familiar with the indications which announce bad weather in this latitude and can predict almost, with certainty, sudden changes without consulting government weather reports. Their kayaks are only safe on smooth water, and no Eskimo can be induced to go out in stormy weather.

Drowning accidents by tipping over of these frail crafts are by no means rare and have taught them to exercise caution. These frail canoes are, on the average, fourteen feet long and two feet wide in the center, tapering gradually into a sharp point fore and aft. They are made of a light wooden framework, the different pieces lashed together with cords made of walrus hide, covered and decked

over with sealskins deprived of their hair, leaving a central opening only large enough for the one occupant to sit in. When a woman is taken on board, she lies flat on her face on the rear of the kayak; or the canoe is rendered more steady by fastening two inflated sealskins, one on each side, a little behind the prow, when she can sit on deck. These kayaks are fine specimens of ship-building, skin-curing and sewing, and are so light that they can be easily carried under one arm, their weight not exceeding thirty-five pounds. The kayak has been in use for a long time by the Eskimos of South Greenland, but when Captain Cook visited the Eskimos of Smith Sound (1851-1854), he found them without any means whatever to travel on the open sea.

The Eskimos here, evidently, received their first ideas of ship-building from their countrymen in the Danish settlements and, at present, turn out kayaks superior to any of those found along the coast of Danish Greenland. The scarcity of wood in North Greenland is best shown by the double paddle with which the kayak is propelled. These are often made of many pieces of wood lashed together with walrus-hide cords.

Toward evening, after the storm had subsided, a man between sixty-five and seventy years came on board, where he met his family who came the evening before. He was a cripple, and could only move about by crawling on his hands and knees. The palms of his hands and the bearskin trousers over the knees showed evidences of hard and long usage. We learned that a few years ago, while hunting seal,



"JUMBO," WIFE AND CHILDREN

His first day on crutches

he was injured by the bursting of the barrel of his old gun. A splinter struck him over the right eye, knocking him senseless, and he remained in this condition for some time, until he was rescued by his companions. The left foot was frozen so severely that gangrene set in. Then, after months of suffering, the line of demarcation formed. His toes dangled loosely, remaining attached to the foot by the more resisting tendons. He begged his wife to sever the toes and she did so with one sweep of the knife. The end of the stump healed, after a long time; but nearly the entire plantar surface remains in a state of chronic ulceration. The only dressing for this foul ulcer was a slipper made of bearskin and worn inside of the sealskin boot. Several scars over the anchylosed ankle-joint were the proofs that it had been involved in the inflammatory process following the freezing of the foot. The foot, or rather the stump, was fixed in a flexed position. A large scar over the right eye and a deep depression near the root of the nose on the same side showed the location and extent of the injury inflicted by the splinter of the bursting gun. We disinfected the foot and ulcer, applied an appropriate dressing, instructed his wife, and gave her enough material to continue the treatment for a long time. The man was a giant of his race, but the intermittent pulse and the difficult breathing on making any physical exertions showed only too plainly that his time for hunting polar bear and walrus had passed. His wife took no inconsiderable pride in having amputated his gangrenous toes in such primitive fashion, and seemed to be very

attentive to him; while he, in turn, reciprocated the tender affection in a visible manner and paid much attention to the infant child sleeping in its mother's hood. One of the engineers made a pair of crutches for him and he is delighted to be able to walk erect with their aid. Poor fellow! he will never be able to provide again food and clothing for himself and family, but the members of his tribe will take care of them. As long as any of them have food and furs they will not suffer.



"JUMBO'S" LEFT FOOT

Toes amputated. Ulcer on the sole of the foot

THE GREAT INLAND ICE-CAP

I have seen enough of the inland ice of Greenland to have become impressed with its vastness and utter desolation. It is in every sense of the word, as Peary calls it, the Sahara of Greenland. From North Star Bay, a splendid view of the ice-cap can be obtained in two directions—one over the valley and the other at the head of the bay. In the latter place, three leaders of the inland ice end at the water's edge in the form of iceberg-yielding glaciers. One of these glaciers is at least two miles in width. To look at the smooth, clean surface of this gigantic mass of ice, which holds at least four-fifths of Greenland permanently in its merciless grasp, reflecting the rays of the all-day sun, as I had an opportunity of doing here for ten consecutive days, is a pleasure allotted to but a favored few. Near the edge, ridges and peaks of buried mountains project above the sea of ice in the form of bare, black prominences, in strong contrast with the silver frosted and the varying delicate blue and roseate colors of the ice. The crevasses at the free margins of the ice extend far into the solid mass and break the continuity of the surface in various directions. The production of these immense fissures is attended by detonations, varying in intensity from the report of a rifle to the peals and mutterings of thunder. Everywhere along the wall of ice little rivulets carry

away the water from melting ice and snow. The purity of the water and the murmuring of these diminutive watercourses are things the traveler enjoys but cannot be appreciated by the natives.

> "Pure, gurgling rills the lonely desert trace,
> And waste their music on the savage race."

This great desert of ice has been explored by Nordenskiold (1883), Nansen (1888), and, most thoroughly, by Peary in 1892. These noted explorers of the far North proved that the interior of Greenland is an unbroken sheet of ice covered with snow and ascending, by gentle inclines from both east and west coasts, to the highest summit reached by Peary, 8,000 feet above the level of the sea.

The projecting lands, called nunataks, are more numerous in South than North Greenland as the melting process from the effects of the summer sun is more pronounced there, gradually reducing the thickness of the ice-shield. The thickness of the ice in the interior is estimated by Peary at 5,000 to 6,000 feet, and its edge is often 1,000 feet thick and moves constantly toward the sea. As a rule, the ice movement seaward is only sufficient to make up for the loss caused by thawing. This inward ice reaches out its cold hands toward the sea in the form of glaciers. There are hundreds of them, but few reach the sea or are of first magnitude. Garde counted 170 along the southeast coast; but, according to Peary, there are perhaps less than 100 in all Greenland that reach the sea and produce icebergs, and only less than fifty of them are of the first importance. According to Doctor Kane, the polar glaciers retain a temperature

of not far from 32° F., which enables them to resume their great function of movement and discharge readily when the cold of winter is at an end and not improbably to temper to some extent the natural rigor of the climate.

The production of icebergs from these glaciers that project over the water takes place by debacle. The event is announced by a thundering noise, and the leap of the liberated icebergs creates a local storm which lasts for some time. The dance of the iceberg after its detachment lasts for several minutes, and it is nearly an hour before the smoothness of the water is restored and the iceberg has found its balance.

Most of the icebergs that reach the Northern Atlantic have their origin along the short strip of the west coast between 68° 30′ and 75° north latitude. Glacier movement was first observed and described by Agassiz in the Alpine glaciers of Switzerland. Professor Chamberlain, of the University of Chicago, spent one summer on the west coast of Greenland for the special purpose of studying glacier movement here, and no better field could he have chosen for such investigation. Here the large glaciers move, it is said, at the rate of about two feet an hour. The great glacier near Upernavik has been observed to move ninety feet a day; but, according to Peary, the speed of glacier movement has been generally overestimated.



ESKIMO DOGS AT NORTH STAR BAY

LIFE AT NORTH STAR BAY

Before sailing from Sydney, the captain of the "Erik" received instruction from Commander Peary to make the first stop in North Star Bay and to wait there for the "Roosevelt," his ship, until August 10th, and then to proceed to the final destination, Etah, if the "Roosevelt" failed to make her appearance by that date, and unload there the cargo of coal and whale meat. I made use of my time during our sojourn at North Star Bay in exploring the interior as far as could be done by daily inland trips, hunting and collecting botanical specimens. It was a continuous, long day with bright sunshine nearly all the time. The temperature ranged between 44° F. and 67° F. in the shade. The difference between night and day temperature did not exceed on an average, more than 6½° F. The summer climate of this part of Greenland is noted for the equanimity of the temperature. The air was dry and bracing, the kind of air that invites one to active exercise of body and mind.

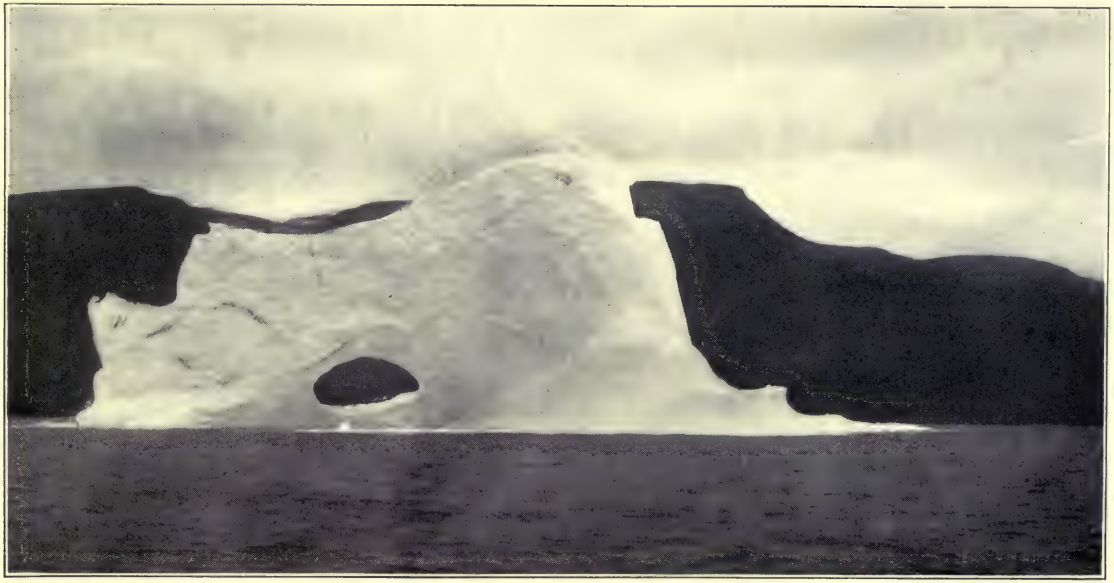
From three to twenty-five Eskimos were constantly on board our vessel, which gave me an excellent opportunity to study these interesting specimens of humanity inhabiting the most northern part of the world. A personal inspection of their near-by settlement satisfied me that their food supply was short, and hence we were not astonished that they

seemed to enjoy the ordinary ship diet which consisted largely of salted pork and hard tack. They appeared to be particularly fond of coffee, which was served out to them in not too concentrated a form. The women did some washing in a most primitive way and the men made themselves useful in rowing the ship's boats to and from the shore. They also made themselves very useful to me in my inland hunting expeditions. As money is here no inducement for labor, I was glad to have brought with me a liberal supply of knives and scissors with which I could remunerate them for their services.

As the natives from the adjacent settlement came to and returned from the ship in their kayaks, we saw much of this kind of native marine life. The women, and children from eight to twelve years of age, showed themselves peers of their husbands and fathers in managing these treacherous little canoes. If I had done nothing else but study the panoramic views all around the ship at anchor, the time would have been well spent. The bay teemed with icebergs of all sizes and endless shapes, from a regular square as though it had been cut in a quarry with the upper surface as clean and smooth as a polished floor, to the most grotesque, fantastic, and artistic designs; and from the size of an entire block to that of a dog kennel.

North Star Bay as a Cemetery for Icebergs

When we arrived in North Star Bay, this great sheet of arctic water was punctuated at short intervals by icebergs and daily newcomers arrived, seeking



TUNNELED ICEBERG

admission, and joined the multitude that had preceded them. The new arrivals came fresh and strong, showing little wear and tear during their short journey from the near-by places where they were born. They must have been astonished to find the grave changes the warm midnight sun of the oasis of the arctic region had wrought in those that had preceded them. The warmth of the sun of the arctic summer sent down upon these strange visitors of the bay, unceasingly, night and day, soon converted the bay into a veritable graveyard for old and young, large and small, of these messengers from a still farther north. The surface of the water was strewn with glittering remnants of former giants. The immense masses of floating icebergs, in a state of advanced disintegration under the effects of the ardent rays of the August midnight sun, broke up into two or more parts with a thundering crash, after which the reeling, dancing, smaller bergs caused a miniature storm in the immediate vicinity of the accident. Many such accidents we witnessed during our ten days' sojourn in the bay. One of the icebergs, in a most dilapidated condition, came near enough to the ship to be lassoed by the sailors and hauled to the port side of the ship. A bridge was soon thrown over the gap between the deck and the iceberg and the sailors were at once busily engaged with ax, pick and baskets harvesting ice and filling the water tanks with the purest of ice, a very excellent way by which to replenish the failing water supply. One of the icebergs in the bay had dwindled down to the size

and shape of a gigantic champagne glass with a hole on one side, in which we saw a saddle-seal taking his afternoon nap. Along the east shore of the bay the bergs were crowding each other, obstinately holding their respective places.

Birds perched on some of the smaller icebergs, resting their fatigued wings and enjoying the warm sunshine so fatal to their perishable crafts. The warm weather was in fierce conflict with the icy elements. Reports like the firing of a cannon announced the birth of a new iceberg, the breaking up of an old one, or a new gigantic fissure in the margin of the near-by ice-cap, and the noise of volley firing, kept up almost without ceasing, meant accidents of a similar nature on a smaller scale. The speed with which these icebergs succumbed to the all-day arctic rays of the sun was something astonishing. Nearly every day I crossed the bay in different directions hunting seal and arctic birds, and very often icebergs familiar one day would be unrecognizable the next. A giant entering the bay in the evening would be found dwarfed the next day. Bergs with proud, lofty towers and steeples, with arches, doorways and windows on their arrival, would be a shapeless mass next day. Truly our good ship was anchored in the very midst of a cemetery for icebergs.

SHORT LIFE OF GREENLAND'S FLORA

We came just in time to see Greenland's floral exhibit at its very best. In our climate we have spring, summer, and autumn flowers, with their distinctive charms and characteristics. Greenland has no spring, no fall, and the summer is so short that nature has to make haste in her vegetable kingdom to propagate her hardy plants. The flowers bud, bloom, and ripen their seed in the short space of two months. There is no time to mature sugar or starch-producing plants, and no time to waste in growing fragrant flowers. The hardy flowering plants, which, during the short space of time allotted to them, perpetuate their species, are found here. All of the flowers are small, without fragrance whatever, and in the simplest kind of dress. Few of them have more than one color and most of them lack the delicate shading of hues, that distinguish the flowers in more favored climates and impart to them their exquisite beauty. These plain little flowers are fresh and pretty but none of them are gorgeous. They are simple and modest and make no attempt at display. Owing to the shortness of the season, the different kinds of flowers blossom nearly at the same time. Under the magic influence of continuous sunlight, the seeds sprout and the buds expand with an activity unknown in our climate.

When we arrived in North Star Bay, the season

of flowers was at its height. The yellow poppy was in its glory and in many places draped the scanty sward, the mossy tundra, the mountainsides, and stony mesas in a garb of yellow. A tiny, ruby-colored flower, always in little bunches crowning the leafy stem not more than two inches in length, met the eye everywhere and grew in places where it was difficult to detect enough soil in which to take root and from which to abstract enough nourishment during its short summer life. White and yellow are the prevailing colors of the flowers in the heart of the arctics. Some of these flowers and the plants producing them were so small that one had to look very carefully to detect them in the short grass and mosses which overtowered them.

At the end of ten days, when we left North Star Bay, most of the flowers had withered and their seeds were maturing with the same marvelous rapidity as the previous budding and expansion of the flowers. The constant sunshine and the warmth of the summer air act like charms in speeding vegetation, and what our soil accomplishes in several weeks takes place here in a few days. I made patient search for edible plants, but only found sorrel, two kinds of cress, dandelions, and cowslips, which might be utilized as vegetables; but none of these except the cresses were in sufficient quantity to serve as a vegetable diet, and the natives could not be induced to make a trial with any of them. The vegetable kingdom yields grasses, mosses, and flowers only for a few weeks during midsummer and the natives have no appreciation of the beauty of flowers and no desire for vegetable food.



THE YELLOW POPPY

Greenland's most famous flower

MATERNAL LOVE OF ARCTIC ANIMALS

Cold and desolate as North Greenland is, it cannot exterminate maternal love in the animals which inhabit it. The struggle for life, hard as it is in this inhospitable region, has had no effect in dimming the spark of love in the mother's heart for the helpless young. Maternity implies care and much anxiety. The maternal love of many animals equals, if it does not surpass, the love of the human species for its offspring. The female polar bear will defy death in defense of its helpless cub. One of the most dangerous foes is the walrus when its young is in danger. The seal mother will risk her life at any time when her infant is in need of her defense. Many stories have been related of the heroism of these inhabitants of the far North when the lives of their little ones were in danger. It seems, if any thing, that the arctic climate adds fuel to the fire of maternal love. I have seen this virtue exhibited on many occasions during my hunting trips in different parts of the world and saw much of it during my brief stay in Greenland. On one of my inland hunting excursions I came to a fresh-water pool in a valley, when I saw an eider-duck flying low toward the pool and evidently with the intention of alighting on the pool. The second barrel dropped her. I then saw another eider-duck on the water within easy range of the gun. I was astonished to find

her remaining after I had fired the two shots. In looking for the cause of the unusual behavior of the bird, I discovered nestling near her three tiny yellow ducklings that evidently had left their shell only a few days before. They could neither fly nor dive. I watched this fatherless little family for a long time and noticed that the little ones made every effort to come toward where I was standing. Their frightened, anxious mother did everything in her power to ward them off and make them swim in an opposite direction by a peculiar cackling noise and vigorous movements, keeping them together and pushing them in the direction of greater safety. In walking along the border of the pool I discovered why the baby ducks wanted to come my way. I found a nest close to the edge of the water, a simple shallow depression in the grass, and near it three broken egg-shells so recently vacated. I finally cornered the family in a narrow part of the pool, within thirty feet from me. I made all kinds of attempts to chase the mother away, but to no avail. Heroically she stood her ground in the defense of her innocent, helpless infants. Being so closely pressed, she commenced to become defiant, flapping her wings, raising her body and hissing at me as if to say, "Kill me if you dare!" No one but a brute would have harmed this devoted mother. It was a source of pleasure to me to see the distressed little family made happy by my leaving that little pond in quest for more legitimate game.

One day the steamer, after a long and vain search for walrus, was headed toward Saunders Island,

at the inlet of the bay, for the purpose of giving me an opportunity to see one of its great bird cliffs, and do some wholesale shooting among the millions of birds that make the cliffs their summer home. Our fresh meat supply had been exhausted for some time, and my only excuse for doing what I did on this occasion was to secure for ourselves, officers, and crew fresh meat. Within half a mile of these cliffs the ship was anchored and two of us boarded one of the life-boats and were rowed within gunshot range of the cliffs. It would be impossible to give the reader a correct idea of the wealth of bird-life here.

The cliffs were almost perpendicular to a height of more than 500 feet. This perpendicular wall is shelved by the layers of sandstone and every shelf was densely crowded with birds' nests. Two kinds of birds make these cliffs their annual breeding places, the kittiwakes and Brünnich's guillemots. These two kinds of birds are congenial to each other, but here as elsewhere, while they are near neighbors they do not mingle indiscriminately. By common consent, the kittiwakes occupy the lower shelves and the guillemots the upper.

As we approached the island, the cliffs became alive with birds, and the air resembled the surroundings of a beehive set in commotion by a sudden intrusion, literally darkened by the moving shadows of thousands and thousands of kittiwakes and guillemots flying in all directions. Most of the young birds were still in their nests craning their necks, anxious to learn the cause of this sudden commotion.

The shooting now commenced and it rained birds, which fell on the rippling water at the base of the cliff. The intensity of the maternal love of these arctic birds was put to a severe test on this occasion, but it remained steadfast. For a moment after a shot was fired, the old birds would leave their home in the immediate vicinity, where a number of victims fell dead, but, in less time than it takes to write this, their places would again be occupied by others. It was their little ones with bills wide open, terror-stricken, unable to find safety in flight that were responsible for this manifestation of fearlessness and heroism. Shooting under such circumstances was no sport—it was cold-blooded slaughter, but we were sadly in need of fresh meat and here was our best chance. In less than half an hour two of us killed 140 birds; none of them were wasted, every one of them was used in changing the monotony of the scanty bill of fare on board the "Erik." The skins were eagerly sought by the Eskimo women, who chewed and dried them preparatory to making them into underclothing for the coming winter.

AN UNEXPECTED, UNLOOKED-FOR VISITOR

Until very recently, the Danish possessions of Greenland did not extend farther north on the west coast than Upernavik, where the most northern Danish settlement is located. This settlement was the northern limit of the Danish jurisdiction on the west coast. No other nation made any claim on the land north of Upernavik. The country north of this point was supposed to be unclaimed neutral territory. This was our impression when we were in North Star Bay.

Monday morning, August 7th, a steamer entered the bay, and as we had no reason to expect any other ship but the "Roosevelt," we were glad to see her arrive in good time. The hunting not having turned out as well as expected, and we being anxious to proceed farther north, which, by orders given by Commander Peary, we could not do until the arrival of the "Roosevelt" or the expiration of the time fixed, August 10th, every eye was fixed on the newcomer. Even at a great distance the vessel appeared too small for the "Roosevelt." As the ship came nearer, we soon ascertained her identity. She carried the Danish flag. It was "The Fox," a 200-ton Danish government steamer. The little coast steamer anchored as near as possible to the coast where the native settlement is located. During the day our captain paid a visit to the steamer, and

toward evening her commander came on board the "Erik" and explained to us the object of his visit to this part of the coast. He brought the natives substantial presents from Mr. Erickson, a Danish scientist, who a few years ago spent a winter on Saunders Island and to whom the Eskimos had been very kind and rendered him much valuable service. He sent them lumber, firearms, ammunition, coffee, knives, scissors, needles, and many other articles which he knew they would appreciate out of gratitude for the many courtesies he had received. The Commander also informed us that he had been instructed by his government to find two harbors, one in this bay and the other near Etah for the establishment of two additional Danish settlements. It is expected that next summer the necessary government buildings will be constructed, thus extending the Danish possessions the whole length of the west coast of Greenland.

This extension of the Danish rule north of Upernavik has for its objects to control the entire trade in fur, ivory, and eiderdown, and to civilize the few remaining Smith Sound Eskimos. This move on the part of the Danes to those who are familiar with the resources of this part of the Greenland coast is a profitable business enterprise, as iron and copper ore have been discovered here and the trade in ivory and fur, and the eiderdown from Dalrymple Rock and Eiderduck Island, will more than balance all expenses, to say nothing of the possible income from the mineral resources. Americans have done so much in exploring this part of Greenland that

their claim on it should be valid, but unfortunately the Danes have outwitted us in this matter and all Greenland is now practically under Danish rule. For three years the same steamer has visited nearly all the Eskimo settlements annually; and the income from ivory and fur must have been considerable, as money is unknown here and the natives are given articles of merchandise in exchange for the products of chase. The Danish government treats the natives with the utmost kindness and, with a view to improving their conditions of life, this expansion will bring every Eskimo within the range of civilization. "The Fox" left the same day at five o'clock in the afternoon on her return trip to Egedesminde. Besides the officers and crew, she had on board a government physician and several scientists.



THE "ROOSEVELT" IN FOULKE FIORD

ARRIVAL OF THE "ROOSEVELT"

The "Roosevelt" was sighted at one o'clock Wednesday morning, August 9th. Her arrival marked an important event for all of us. I was particularly anxious to push farther north and spend as much of my time as possible in the neighborhood where so many explorers had spent their long winter night. With the stars and stripes flying from the middle mast, the vessel, bearing the name of our strenuous president, glided proudly over the smooth water of the bay at half speed, in the brilliant light of the midnight sun. On both vessels everybody was on deck in anxious anticipation of the meeting. When within almost speaking distance the "Roosevelt" struck a rock with a heavy thud, and came to a sudden standstill. The "Erik" at once went to her relief and, when within reach, a cable was carried across. The vigorous reverse action of the propeller of the "Roosevelt" aided by the traction of the "Erik," in half an hour released her from the hard bed of rock and she was again afloat. On the deck of the "Roosevelt" stood many fur-clad Eskimos, who had been taken on board at Cape York and adjoining settlements, curiously watching the movements of the "Erik" and scanning their countrymen and the crew on her deck. The dogs on deck of the "Roosevelt" barked and howled. In the center of the group of Eskimos stood Commander

Peary, in his summer suit of fur, towering far above them like an immense giant. His long hair fluttered in the morning breeze. He wore a sealskin coat, polar bear fur trousers, and sealskin boots. He came on board the "Erik" and dispatched the "Roosevelt," under command of Captain Bartlett, at once to Etah. We learned that the delay of the "Roosevelt" was due to an accident to one of her boilers when two days out from Sydney, an occurrence which reduced her speed from fourteen to seven and a half knots an hour.



COMMANDER PEARY IN ARCTIC SUIT

COMMANDER PEARY

"The gods look with favour on superior courage."—*Tacitus.*

Commander Peary is a remarkable man. His persistent efforts to reach the north pole have earned for him a well-merited international reputation. He has made this feat his life work and is determined more than ever to accomplish it. After his repeated trips to the arctic regions, he has spent two years in making preparation for this expedition. During this time he planned and supervised the building of the "Roosevelt." His large experience in fighting pack-ice has given him many new ideas in ship construction for this special purpose. The "Roosevelt" is an ice fighter and will not disappoint the sanguine expectations of the one who gave the most important ideas to her designer. No expedition ever sought the north pole so carefully planned and so thoroughly equipped as this one. Commander Peary has reached the fiftieth milestone of his daring career. His presence in any gathering would at once attract attention. He is above average height, spare but wiry, has reddish-brown hair and beard lightly sprinkled with gray, blue penetrating eyes, firm lips and massive lower jaw, so suggestive of courage and determination. His slow, accurate speech and precise, quick movements remind one of his naval training and give evidence of his superior

executive abilities. Everything about this extraordinary man suggests that he is a leader of men, a man who makes his plans carefully and then loses no time in executing them. He is a great worker and knows how to induce other people to follow his example.

He is plain in his habits, having placed himself in training for this arduous work ever since he determined to undertake it. He told me that the fewer needs a man has in this part of the world, the less he would miss the luxuries of home life. His familiarity with the geography of North Greenland, and his knowledge of the natives, their language, habits, and customs, and his vast experience in the far North, which has taught him how to live here, make him the right man in the right place. His fearlessness when confronted by danger is well known, and has been tested by many experiences which would make ordinary men shrink from repeating them. He enjoys the confidence of his many Eskimo friends who accompanied him on his previous expeditions, and who know that they can always rely on what he says and does. He is an eloquent example of the force and truth of the sentiment:

> "Constant exposure to danger will inspire contempt for it."—*Seneca.*



BLUE FOX AT DUSK

FROM NORTH STAR BAY TO ETAH

On this part of our journey we were favored by the presence of Commander Peary, who seldom left the bridge, and explained to us the different points of interest. He gave us interesting accounts of Eskimo life, the habits of animals who inhabit this region, and his own experiences during his previous expeditions.

We left North Star Bay after midnight, August 11th. In a straight line the distance from the bay to Etah is only 140 miles. This distance was more than doubled by calling on the four or five native settlements scattered along the coast of Inglefield Gulf, a broad body of water which extends eighty miles inland from the main coast. We arrived at Whale Sound early in the morning. In passing the most important landmarks of the coast line, Cape Parry and Cape Radcliff, we had an excellent view of Hakluyt and Northumberland Islands, limiting Whale Sound to the north. After rounding Cape Radcliff, we came in full view of Barden Bay and the great Tyndall glacier. Beyond this point, the coast is a succession of rugged mountain peaks and small glaciers. Among the latter Peary pointed out a secondary glacier, created by the breaking off of an enormous mass of ice from a glacier which did not reach the shore; consequently the ice, falling on firm land, formed the nucleus of a daughter glacier,

which in the course of time reached out into the frigid water of the sound.

At the junction of Whale Sound with Murchison Sound, two great arms of the sea extend inland, Inglefield Gulf and Olrik's Bay, which include a large island and are connected by Academy Bay. The coasts of Olrik's Bay are, at the present time, the favorite haunts of the reindeer. Commander Peary assured me that large herds of these animals can be seen from the deck of a vessel ascending the bay. It is from this locality he obtained his supply of venison during the winter he spent in Bowdoin Bay.

It was the intention of Peary to visit every native settlement on our inland voyage. At the inlet of Inglefield Gulf we passed Kanga, but the most vigorous blowing of the whistle brought no indications of life. The old Eskimo settlement here had, evidently, been abandoned and the natives had sought better hunting grounds farther up Inglefield Gulf.

Inglefield Gulf

Inglefield Gulf is unquestionably the most picturesque spot in Greenland. It is a long, narrow sheet of water hemmed in by rugged mountains and glaciers, with the towering ice-cap constantly in view on both sides. From the entrance of the gulf, the ice-cap can be plainly seen at its head, seventy-five miles away, looming up far above anything else, like a gigantic mass of frosted silver. The steep walls of gneiss and granite enclosing this inland arm of the sea, intersected by deep ravines in which the



HEILPRIN GLACIER IN INGLEFIELD GULF

Taken across gulf

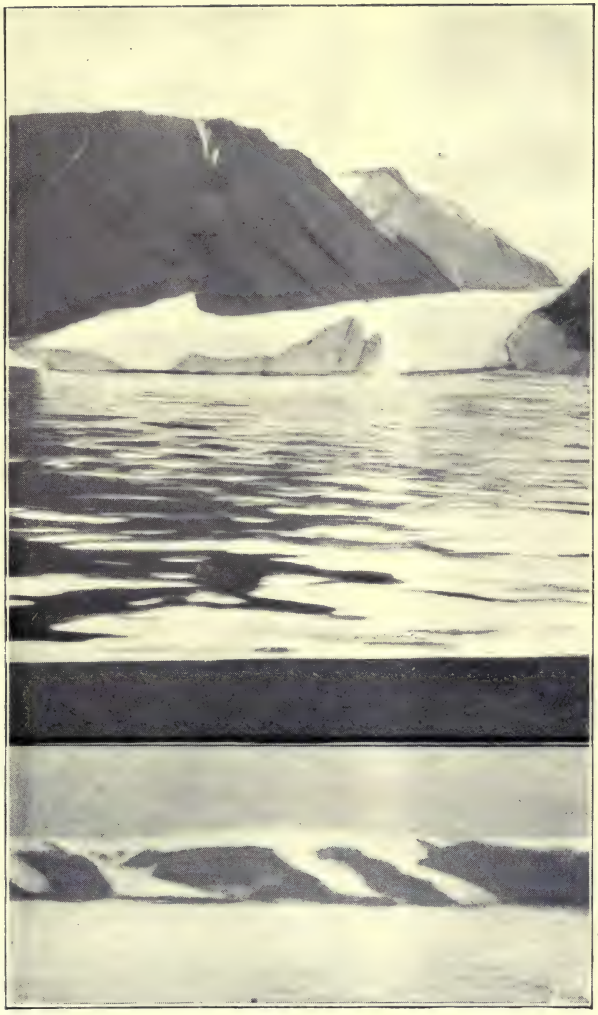
glaciers dwell, moving lazily seaward to contribute their share of young icebergs, are a sight which must please the most unappreciative eye.

We found the gulf thickly populated with magnificent icebergs, and between them no inconsider able amount of pack-ice. Looking ahead of the ship, icebergs and pack-ice appeared to form an impassable barrier to further progress and our captain considered it as such; but Commander Peary, more familiar with such a sight, had no such fear. The man in the crow's nest could see far ahead and pointed out lanes through which the vessel could pass with safety. The innumerable icebergs in this gulf, all of them offsprings of the many glaciers which are contributing to it and the fields of pack-ice crowding their way between them on their journey seaward, form panoramic views of exquisite beauty. Inglefield Gulf has a warm spot in the heart of Commander Peary. He calls it the most beautiful part of the oasis of the arctic region. He spent two winters of his eventful life in this neighborhood; one in McCormick Bay, an offshoot of Murchison Sound; the other in Bowdoin Bay, an arm of Inglefield Gulf. Anniversary Lodge of Bowdoin Bay is the birthplace of his little daughter. It is in this locality that he is perfectly at home, and where he has left the strongest impressions of his careful investigations and permanent landmarks in memory of his devoted and courageous wife. The most conspicuous point of Northumberland Island he called Josephine Head, and an island at the very head of the gulf is known as Josephine Island.

This island is embraced on the northeast side by two great glaciers, leaders of the great ice-cap, Melville Glacier and Farquhar Glacier. Nearly the entire year one can ascend from the island over these great ice-bridges to the inland ocean of ice. The iceberg supply never fails in the gulf. Summer and winter they are present. During the summer, as the veteran icebergs slowly move seaward, new ones take their place from the many contributory glaciers.

Even from the deck of the steamer we discovered that, in moist places, along the coast patches of green meadows relieved the prevailing monotony of bare rock and the marble whiteness of ice. The climate here during the summer months is delightful. Fog seldom comes so far inland, and the continuous sunshine and protection from severe winds make it an ideal summer resort for invalids.

Arctic vegetation is at its best here and the numerous natives who have selected the gulf coast for permanent habitations would render a brief summer visit of invalids most interesting and instructive.



a. SOUTHERN SHORE INGLEFIELD GULF
Showing glacier and pan ice

b. THREE GLACIERS LEADING DOWN FROM THE ICE-CAP AT THE HEAD OF THE GULF

HOW PEARY COLLECTED HIS ESKIMOS

The popularity of Commander Peary among the real Eskimos is best shown by the way in which he recruited his native contingent for the present expedition. At the first inhabited settlement we called upon, we could see from the deck of the steamer a number of women standing on a high bluff behind the tents gazing at us. There were numerous dogs prowling about the grounds. Five tents, near a glacier and perched on the banks of a roaring mountain stream, made up the habitations of the natives.

Commander Peary went ashore and learned that the men were away on a hunting expedition and were not expected to return until late in the evening. The third settlement farther up the gulf consisted of the same number of tents. As Commander Peary landed, the natives gathered around him and in less than half an hour we observed that the tents were being taken down, and, under his personal supervision, all of the inhabitants, twenty in number, with all their belongings and about thirty dogs, were on board in less than two hours. Two of our row boats and the native kayaks were used in the house-moving. These people knew nothing of Peary's coming in the morning, and in the evening they were all safely housed on the deck of the "Erik." The confidence of these people in Commander Peary is absolute. They have served him during his previous visits and know, from their experience in the

past, that they can trust him. The natives taken aboard here showed all the indications of at least temporary prosperity. They were a happy-looking lot of people, much cleaner and better dressed than those we had on board from North Star Bay or those on the "Roosevelt" from Cape York. They brought with them a large quantity of valuable fur, skins of the polar bear, reindeer, seal, arctic fox, and hare. They live in a place so remote from the coast that they have had but little communication with the outside world; consequently, they have remained true to their primitive habits and customs.

Another reason which goes far to explain the prosperity of these people is the fact that the head of Inglefield Gulf is one of the best hunting grounds. Walrus, narwhal, reindeer, and seal are quite plentiful here. The narwhal has selected the head of this gulf as one of its favorite feeding places during the summer. The walrus, on the other hand, makes Murchison's Sound, near the entrance of Inglefield Gulf, its gathering point from earliest spring until late in the fall. These two giant sea-animals are deathly enemies and avoid meeting each other as much as possible; but when they do meet, a bloody encounter is the usual outcome.

About midnight, we called at a native settlement on Harvard Island, at the very head of the gulf and within full view of the ice-cap and a number of glaciers of the first magnitude. The natives living in the two tents, their dogs, and all their possessions were on board the "Erik" in less than two hours. When Peary went after them there was



ICEBERG AT HEAD OF INGLEFIELD GULF

The Eskimo in kayak about 100 yds. this side of berg. Estimated height of berg, 180 ft. above water

no need of making any arguments—their faith in him was all that was necessary to make this unexpected sudden change. House-moving in the arctics, with Peary at the head, is a very simple and prompt affair. I doubt if any other man in the whole world could accomplish the same object so promptly, or at all. These Eskimos had killed a narwhal during the day, and brought it on board. It was a young female about twelve feet in length and weighing about 800 pounds. We saw, during the evening, a herd of these animals swimming very much like the porpoise. The interesting features of this herd were the males with a horn six to twelve feet in length, their gigantic eyetooth, projecting from the left side of the upper jaw. This is their weapon of defense which, during the bounding gait of the animals, often appeared high above the surface of the water. The female, as a rule, has no such means of warfare, relying on her male companion when she is in danger.

Dissection of a Narwhal (Monodon Monoceros)

When the natives cut up the narwhal I improved the opportunity to take some notes on the more important points of the anatomy of this interesting sea animal. The skin is very thick, leathery, and of a grayish white color, and is considered a great delicacy by the Eskimo, who eat it raw. I sampled this Eskimo dish and it proved quite agreeable. What chewing of gum is to the American youth, narwhal skin chewing is to the Eskimo. Fresh, raw narwhal skin has a well-established reputation in

the Danish settlements as a specific for scurvy. The governor of Godhavn informed me that scurvy is quite a common winter disease in that part of Greenland, but that it disappears in the spring as soon as the natives can get a supply of narwhal skin. The layer of fat between the skin and the muscles is about four to five inches in thickness. Uterus bicornis. One of the ovaries was removed, preserved in formalin solution, and on my return was presented to Dr. Byron Robinson for histological study. The muscle tissue is very coarse and scanty in amount considering the great strength of the animal. Along the posterior surface of the spine is a band of glistening tendon tissue about five inches in width. This mass of dense, fibrous tissue is prepared by the women by chewing and drying, and the fine, long fibres are used as thread in sewing clothes and boots. The intestinal canal is very long and the stomach appears to be simply a dilatation of its upper end while in a downward direction, gradually diminishing in size, the rectum being the narrowest part and which does not exceed in size the duodenum of an adult. There was no colon, cecum, or appendix. The kidneys were oblong, flattened, and markedly lobulated. The pancreas is situated transversely behind the stomach part of the intestinal canal. Liver, very flabby, was of a deep chocolate color. There was no gall-bladder. One of the interesting anatomical anomalies of this strange animal is a rudimentary femur about four inches in length and not much larger than a goose quill imbedded in the muscle tissue in the location where it is in quadrupeds, a

probable proof that ages ago the narwhal may have been a four-legged animal.

Friday, August 11th. We have now twenty-six Eskimos on board with their families, among them a number of infants. The babies take up no room, as the mothers carry them in their hoods. Among the newcomers is the most famous hunter who has had many scraps with polar bears at close range. Several large scars on different parts of the body bear witness that more than once the victory was dearly won. As the result of an injury he lost one of his eyes; but although more than sixty years of age, he maintains his well-earned reputation as the most daring and successful bear hunter.

The increasing number of natives, and the more than 100 dogs so far collected, render the deck more and more interesting from a scientific point of view, but with the increase of the Eskimo population and the number of dogs, filth and nose-killing smells accumulated at an alarming rate. Before leaving Inglefield Gulf we had nearly 100 natives on board. Kayaks, sledges, tents, harpoons, fur, over-matured blubber, ribs of seal and walrus, the smell of which would frighten away any ordinary dog, were stored away wherever room could be found. Our lifeboats were brimful with the rubbish household articles of the Eskimos, and several of them were converted into family headquarters for the balance of the journey. The half-tame Eskimo dogs were corralled on one side of the deck securely picketed to reliable points of anchorage with walrus hide ropes. These beasts bark, howl, snarl, and whine most of the

time, and desperate fights among themselves can be witnessed most any time, day or night. The fighting spirit of these dogs knows no limit, and all of the explorers suffered serious losses in the number of their dogs from this source, and often at a time when the loss of a single dog weighed heavily in the balance of failure of the expedition.

The pools of blood from the dead narwhal extending as they did, over a considerable surface of the deck, the filth of the improvised kennels, the lively fights of the dogs for their share of the smoking entrails of the slaughtered beast, and the eating of putrid meat by the Eskimos rendered the deck anything but attractive at this time. Besides this, it had become so slippery with a coating of grease, blood, and coal-dust that it became necessary to exercise the utmost care to avoid accidents from falling.

It was after midnight when we took on board the natives of the last settlement on the north coast of Inglefield Gulf, after which the course of the ship was directed toward Murchison Sound, the favorite summer feeding ground of the walrus.

Murchison is a wide arm of Baffin Bay, which separates Northumberland and Herbert Islands from the main coast between Cape Cleveland and Cape Ackland. Like Inglefield Gulf, it is seldom free from pack-ice even during the middle of summer. It is on the pack or drift-ice that the walrus are found. Commander Peary has never failed in securing walrus whenever he visited Murchison Sound. On one occasion his party killed thirty in one day.



KUD, AND HIS CHUM

It was the intention of the commander to devote this day to walrus-hunting in Murchison Sound. In sailing about in Inglefield Gulf, we saw many seal swimming in the water, one herd of narwhal, but not a single walrus. The arctic birds were likewise not nearly as numerous as in North Star Bay. About ten o'clock in the forenoon, a walrus was discovered, on entering the sound, asleep on a pan of drift-ice. When within half a mile the engine was brought to a standstill, and a boat was lowered and manned by Eskimos. The animal was drowsy, but once in a while raised the head. It allowed the boat to come near enough for three of the natives to throw their harpoons at the same instant. Two missed the mark and the third harpoon struck a rib, preventing the weapon from penetrating deep enough to hold the animal. This rude disturbance aroused the animal, and in one desperate plunge it disappeared head foremost, and was not seen again. Next, a pair of animals were discovered on the same pan of floating ice, lying side by side, but took to the water before the harpoonists were near enough to use their weapons. At this time a dense fog came in from the open water and put an end to the hunting. The ship was allowed to drift among the many icebergs, which often came within a very short distance before they could be seen, and collisions were avoided by a few turns of the propeller and the skillful handling of the rudder. Toward midnight the fog was driven landward by a rising breeze, clearing the atmosphere sufficiently to enable the captain to find the settlement we called on first the morning of the day before, and in less than

three hours had all of the dogs and the desirable men with their families on board. These roving people are not encumbered by unnecessary things. The clothes they wear, kayak, sledge, skins, and dogs constitute their entire luggage; and this they carry with them, over land and sea wherever they go.

The Inglefield Eskimos are the possessors of a large rowboat presented to them, a number of years ago, by Commander Peary. This present is much appreciated by them and it has done excellent service during the summer months. The men manage this boat with skill, and use it during their hunting trips and in moving their families from place to place along the coast. To be called on at midnight and transferred to a steamer, without previous notice, in such a short time and for such a long and dangerous journey is certainly a feat which could not be duplicated in our country except in the case of a well-disciplined army. These simple childlike people had no hesitation in following Commander Peary. The advisability of breaking up their homes on such short notice and following their leader to the extreme North was not discussed for a moment. They simply went, knowing that their white chieftain would take good care of them, and bring them back in safety. They never considered the possible risks of such a move. Their implicit confidence and firm faith were the mainsprings of their action.

The women and children form an important part of the expedition. The women are excellent seamstresses. They prepare the furs and make the clothes and boots. Young boys skin and cut up the dead



THREE NATIVE GIRLS

The one on the left is a half-caste

animals, and the many babies complete the family ties and do not hinder their mothers from doing their good share of the work. The Eskimo will not leave his family for any length of time. If he goes hunting only for a few days, his wife or somebody else's wife must accompany him. We have several on board who exchanged wives before their departure. They are mated for this expedition, and on their return may resume their former marital relations.



Eskimo Woman with Child in Hood. Man with Child in His Arms

THE WALRUS

The walrus is one of the large, warm-blooded sea animals that makes the arctic regions its permanent home. It will not abide for any length of time where there is no ice. It rests, sleeps, and travels on floating ice. The Eskimo excels in walrus-hunting. The greatest ambition of the Eskimo youth is to kill his first walrus, an event, when accomplished, which elevates him at once to manhood, elevates him to the dignity of a hunter, and entitles him to seek for a mate.

This huge beast of the sea furnishes the Eskimos with the essential articles of diet and fuel, and the hide is used for cordage, igloo roofs, and soles for the sealskin boots. It is to the natives what live stock is to us. The walrus (*Trichechus rosmarus*), called *awick* by the Eskimos, is in reality a giant seal. A full-grown walrus measures from twelve to twenty feet in length and weighs from 1,000 to 2,500 pounds. It is a very unseemly animal, devoid of every trait of beauty. When seen at a distance on pans of floating ice, these lazy, sleeping, or half asleep animals look like shapeless, reddish-brown masses; and when in large herds, some of them moving, others motionless, the sight is almost repulsive, reminding one of a multitude of creeping maggots. This is the impression made on me, when we saw a large herd basking in the sunshine on a large pan of ice

in Murchison Sound. The walrus is an awkward traveler on ice and land, but a swift and skilful swimmer. The long, flabby body is thickest in the center, like the seal. From the immense gray or brownish, almost hairless body, the rudimentary limbs project in the form of flippers. All four feet have five toes with short, dull claws behind the tip of each toe. What distinguishes the walrus from all other sea animals of its size, is the small unshapely, thick head. The nose is very short, broad, and blunt, the upper lip large and fleshy, curved laterally, the lower lip massive. On both sides of the nose are transverse rows of beard bristles three to four inches in length, the largest about the size of a crow's quill. The nasal orifices are semi-lunar in shape; the eyes small, deeply set, and brilliant, are protected by projecting lids. The aural orifices, devoid of anything resembling the lobe of an ear, are far back in the head. The most remarkable part of the anatomy of the walrus is the upper canine teeth, which develop into tusks of prodigious size. These teeth or tusks, in the adult animal are twelve to twenty-four inches in length, slightly curved, with the concavity toward the head, and, as a rule, somewhat divergent.

Anomalies in the development of the tusks are of frequent occurrence. In one of the animals killed on this trip, a female, the tusks converged, a rather unusual thing according to the observations of Peary. Inequality in the length of the tusks is very common. The tusks of the female walrus are more slender than in the male. The lower jaw in the adult has no teeth, as the teeth present in the young



BIRD CLIFF, SAUNDERS ISLAND

animal are deciduous. The tusks are hollow in the young animal but with advancing age, are transformed into a solid mass of ivory.

The skin, brownish, or of a mottled gray, is very thick, rugose, knotty, and only scantily supplied with hair. When in mid-air, as the carcass dangles at the end of the rope which hauls it on deck, the huge body of this animal appears as a shapeless mass, flabby, the skin too large for the almost sickening mass.

These animals migrate from one feeding ground to another in large herds. It is a lazy animal, spending days on the bed of ice, without moving. The walrus is not a gamy animal and killing it by shooting is poor sport. Shooting does not alarm these animals, as they have become accustomed to such noises produced by the cracking of ice. The male walrus when in danger, sometimes shows fight, as well as the female when in charge of her defenseless offspring. On land these animals walk with difficulty; however, they do not crawl but walk on their imperfectly developed limbs. The tusks serve them a good purpose in climbing on the floating ice, in making breathing holes in the ice, and as a formidable weapon of defense. The voice of the walrus is a barking noise; but in impending danger it turns into a hideous howling.

The period of gestation is nine months, and the result is one, seldom two calves. The males abandon the females during that time, and mate again during the breeding season. During the summer, Murchison Sound is inhabited by females as was well shown

by our hunting, which resulted in seventeen females and only one male, and he was a very young one.

The walrus feeds on crustaceæ, especially on mussels found in shallow water, and, according to Mahn, Browns and Green, they also eat sea-plants, especially the *mya truncata* and *saxicacava rugosa.*

The internal anatomy of the walrus is very similar to that of the narwhal, described above, and as shown by numerous dissections made on board the "Erik."

A Walrus Hunt

Saturday, August 12th, was devoted to walrus killing, as Commander Peary was desirous of increasing his stock of food for the natives and dogs, that were to accompany him on his intended trip to the north pole. Both the Eskimos and their dogs are hearty eaters, and to get good work out of them they must be well fed, hence this wise precaution to supply them with an abundance of good food. Murchison Sound, the favorite haunt and feeding ground of these animals, was selected for the hunt. The weather was all that could be desired, calm sea and much of the time bright sunshine. The numerous icebergs and pans of pack-ice made it probable that the hunt would be a successful one. The Eskimo knows all that can be learned concerning the habits of the walrus and the best manner of hunting it. A long experience has taught him to construct from the simplest materials the most ingenious of his primitive weapons—the harpoon.

The mechanism of the whole hunting outfit for

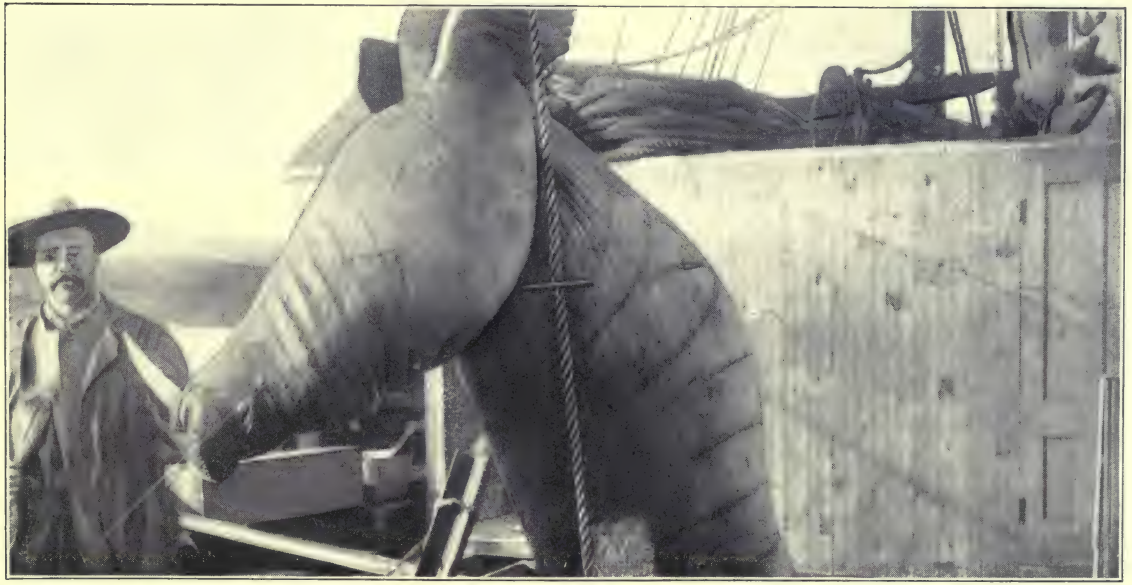
walrus and seal is simply perfect. The harpoon is made in three parts. The point is a piece of ivory, three to four inches in length, tipped with a sharp, triangular piece of metal and its base is hollowed out to fit the larger ivory point of the shaft. This larger ivory point is fastened to the wooden part of the shaft, which is about six feet long, with two cords of walrus hide, making a jointed connection, so that after the harpoon has struck the animal the shaft at this point bends automatically, thus facilitating the detachment of the shaft from the point which has penetrated the flesh of the animal. A strong line of walrus hide, about 100 feet long, is fastened to the center of the harpoon point, and to the opposite end is tied an inflated sealskin which looks like a small balloon.

The walrus line is arranged carefully in a loose coil, so that it unravels readily when the harpoon is thrown, and with a view of detracting as little as possible from the force with which the weapon is thrown. The seal skin balloon, floating on the water when the animal is near enough its surface, enables the hunter to pursue his game for hours if necessary; and the dragging of the balloon, when under water, increases the exertions of the animal and brings it sooner under submission.

The Smith Sound Eskimos have added to the line another contrivance calculated to tire out the harpooned walrus in the shortest possible space of time. It consists of a shallow wooden box, a foot and a half square, the inside center of which is connected with an additional rawhide cord fastened

to the main line nearer the harpoon point than the balloon. The dragging of this box through the water is done at the expense of a great deal of strength on the part of the wounded animal. Before the use of firearms, the natives pursued the animals by means of these most ingenious mechanical contrivances until they were exhausted to an extent which made them harmless, or nearly so, during the last encounter, when the hunter approached near enough to secure his game by a thrust of his lance.

The walrus is not a gamy animal and, when the hunter is armed with a large caliber repeating rifle, the harpooned animal has but little show for his life. As a rule, at least two Eskimos, in their kayaks, sneak up to the sleeping or unwary lazy animal on his bed of floating ice until within throwing distance, about forty feet, of the deadly harpoon, when it is thrown with sufficient force to penetrate the thick, leathery skin. If the point does not strike any of the superficial bones, it enters deep enough to gain a firm hold from which the animal never can release itself, as the weight of the shaft and traction of the line bring the detached point into a cross position to the wound in the skin. The sleeping or unsuspicious animal, so suddenly awakened to reality, now plunges head foremost into the water, disappears from the surface, but is soon made to experience that swimming has become more laborious as it drags the balloon after it in its flight away from the enemy. The balloon disappears soon after the animal makes its plunge for safety; but, as it can only remain under water for about ten minutes, the float soon makes



TAKING WALRUS ON BOARD AFTER THE BATTLE

its appearance again. A little later, the ugly head of the infuriated animal is seen a short distance ahead of it, and after a few seconds disappears again to seek safety from the pursuing foe in the depth of the water.

The hunter has no difficulty in following his game, because the balloon indicates its course. As many of the Eskimos are now supplied with fire arms, the old way of hunting seal and walrus has been abandoned, and is only made use of when the ammunition gives out. They greatly prefer the rifle to the lance in killing the harpooned walrus, as the new way of hunting requires less time, is attended by less danger, and brings more game. The shooting is done at short range, and the only fatal spot is the neck, about six inches behind the rudimentary external ear. If the bullet strikes this spot the animal is killed at once by the severing of the spinal cord.

Now the balloon serves another very important purpose. The dead walrus sinks almost the moment life is extinct. The balloon offers sufficient resistance to keep the carcass suspended in the water. The Eskimo tows the dead animal to the landing-place by fastening the line to the rear end of his kayak.

On the day of our walrus-hunt we picked up as many as four animals at one time, the floats marking their location. These enormous beasts, which on an average weigh a ton, were hauled on deck of our steamer by steam-power. The animal is brought alongside of the ship, and a sailor in a rowboat

makes two parallel cuts in the skin on the back part of the neck, four to six inches apart. This bridge of skin is then undermined for the insertion of a strong iron hook at the end of a rope worked by the crane, which then lifts the carcass high into the air and swings it on deck. The thick, rough gray skin appears like a huge bag, too large for its flabby contents. The killing during our walrus-hunt was done, exclusively by shooting, and the natives did most of it. The Eskimo hunter is a good marksman and always averse to wasting ammunition. He knows the fatal spot and only shoots at very close range to make sure of his work with the rifle. The white men who took part in the hunt went in rowboats manned by natives, the expert harpoonists and hunters used their kayaks. Some of the animals were harpooned before they were killed; others were killed on the ice or swimming, and then were harpooned to keep them from sinking.

The wounded walrus, when closely pursued, expresses distress and fear by a terrible noise which can be heard at a considerable distance. It is a kind of bellowing, a compromise between the mooing of a cow and the deepest baying of a mastiff. This bellowing is repeated seven or eight times in rapid succession. Several of our wounded animals gave us an opportunity to familiarize ourselves with the strange voice of this great sea animal when in agony with pain and fear. One of the harpooned animals, which was pursued for a long time before it was killed, was a female accompanied by its infant, which clung to its mother until life was extinct and



Eskimo Women at Work on Deck of the "Erik"
Cleaning Walrus Heads

the ship arrived to haul the carcass on deck. The native hunters took a lively interest in this day's work and several times as many as ten kayaks and two rowboats were out at the same time.

While walrus-hunting cannot be regarded in the light of a sport, it affords an interesting spectacle for the one who witnesses it for the first time. It is a sea battle in which the Eskimos display their skill and cunning as hunters of this huge beast of the sea. The largest herd we came across this day was collected on a large pan of ice and numbered about fifty. This herd was left undisturbed until after supper. It was the intention to surround it and attack it from all sides. The animals, however, were more wary than usual, and, when the attack was made, disappeared before they came within reach of the harpoon and guns. Desultory firing took place in different places as the animals appeared here and there on the surface. Several were wounded but none were secured. When we left Murchison's Sound, we had on deck seventeen walrus, all females except one, one seal, making a small mountain of flesh and blubber to serve as food for natives and their dogs on the "Roosevelt," during her trip to the farthest North.

A number of Eskimo boys at once commenced to skin and dismember the carcasses. As every walrus contains nearly a barrel full of blood, the scene that followed can be better imagined than described. As the young butchers proceeded with their work, the deck became flooded with grease and steaming blood. The boys in their sealskin

boots, were ankle deep in this slippery mixture. The more than a hundred snarling, fighting dogs dragged the entrails in all directions. Each of them determined to get his liberal share of this, to them, their greatest delicacy.

Men, women, and children waded through the pools of blood and scattered it all over the deck. The dogs were smeared with blood, grease, and filth, and this, together with the thirty tons of coal still on deck, will give some idea of the discomforts of deck-life during this part of our trip. I have encountered all kinds of bad smells and thought that I could bear everything in that line without disturbing my stomach, but now the stench had grown in intensity to such a degree that I had to apply a handkerchief to the nose when I went on the bridge to breathe fresh air. Even the bridge, the cleanest spot on deck, had become slippery with blood and grease, carried there by the shoes and boots of those who sought refuge here. The little skylight in the ceiling of my cabin looked like a big ruby. As the galley was in the filthiest part of the deck, the steward and cook had to wade through blood, grease, and filth every time they went to and from the kitchen.

Such was life on the "Erik" until we got rid of the undesirable part of the cargo on our arrival at Etah. Etah is about sixty miles north of Point Iglunaksuak, the northern coast limit of Murchison's Sound. We left the sound at two o'clock in the morning, and, in sailing along the coast, were constantly in sight of the great ice-cap and passed glacier after glacier, intercepted by rugged towering



HALF OF THE BAG

Two hours' shooting at Bird Cliff, Saunders Island

capes. The scenery along this part of the west coast of Greenland is inspiring in its grandeur and severity.

At nine o'clock, Sunday morning, August 13th, with the sun high above the lofty mountains, we rounded Cape Kenrick and soon entered Foulke Fiord, where we found the "Roosevelt" at anchor near the shore, within a very short distance of the ancient Eskimo settlement, Etah. It was a pleasing sight to see the staunch little steamer destined to find the north pole, flying the stars and stripes from the topmast, peacefully moored in the quiet waters of Foulke Fiord, where so many arctic explorers had found rest and shelter in the past.

It was here where the last preparations were to to be made for the final hazardous journey to the farthest North. The first news we received from the "Roosevelt" was to the effect that soon after her arrival a fire broke out on board. It was in Captain Bartlett's cabin. In some unexplainable way the bag containing most of his clothing caught fire. The smoke issuing from the cabin, was soon discovered, and no further damage was done than the loss of the contents of the bag. The dogs were at once taken on shore, which cleared the ship of the most disagreeable part of her cargo. The deck was flushed, the walrus meat transferred to the "Roosevelt," and the hides salted and packed away in the hold of the "Erik."

Now came the difficult task of uncoaling the "Erik." Two life-boats were lashed together and covered with an improvised platform, upon which

the coal, in bags and barrels, was ferried to the rocky coast and unloaded on a stony eminence above high-water mark. It was anticipated that in three or four days this work could be finished, but in this we were sorely disappointed. Several days were lost by the sea being too rough for the to and fro passage of the frail, extemporized barge, so our stay in Foulke Fiord was prolonged for ten days, when threatening weather announced the approach of winter and forced the captain to return with only a part of the cargo of coal on shore.

ETAH

ETAH

Etah, called *Etah nami* by the Eskimos, is an important and historic point on the west coast of North Greenland. It is the very center of the arctic region and has been the winter quarters of a number of arctic explorers. Doctor Kane, whose winter quarters were only about forty miles distant from here, visited the settlement repeatedly during the winter and received much valuable aid from the natives. Peary and Hayes spent each one winter here. Etah is located in latitude 78° 20′ north, less than 700 miles from the pole. It is a very ancient Eskimo settlement, the most northern habitation of man in the world. The five igloos are located on the north shore of Foulke Fiord, a short distance from its entrance, near a turbulent rivulet which drains a small glacier and, with much noise and impatience, rushes over the stony bed to be lost in the waters of the fiord. The profuse growth of grass in the neighborhood of the settlement, growing from a very scanty soil, is the best proof what fertilizers, in the form of offal and excreta, can accomplish even in the coldest place on earth inhabited by man.

At the head of the fiord is a similar luxuriant meadow marking the place, where, perhaps for centuries, the natives have lived in tents during the summer. Foulke Fiord is a small arm of Smith

Sound, hemmed in by steep mountains from 1,000 to 3,000 feet high, the mountain wall affording protection against north, south, and east winds. In the case of gales from the west, the harbor is an exposed one. The water is very deep, almost up to the very shore, and the navigator has only to look out for several small islands in entering the harbor. When we entered the fiord, snow-clad Cape Isabella, on the opposite side of Smith Sound twenty-three miles away, in the pure, rare arctic air, appeared to be only a few miles distant, and Cape Sabine, Greely's winter quarters to the northwest, was plainly in sight. The whole coast of Ellesmere Land, of which the two capes are the most conspicuous landmarks, was buried under ice and snow.

It is in Smith Sound, which separates Greenland from Ellesmere Land, that the polar current along the coast of the latter is very rapid, about eight miles an hour, and seldom free from icebergs and pack-ice. It is in this body of water that the navigators are prepared to battle with ice. We found no natives at Etah. They had evidently located somewhere else for the summer hunting. A number of tents were soon erected on shore and were occupied by a few families who were to remain here during the winter, forming the base of Commander Peary's present expedition.

THE SMITH SOUND ESKIMOS

The Smith Sound Eskimos, including all the settlements from Cape York to Etah, have come in closer touch with the explorers than those of any other part of Greenland; for this body of water is the principal and most favored gateway to the farthest North. Captain Ross called them the "Highlanders of Greenland." They live in almost complete isolation, having had little communication with the natives farther south, or with those on the American Continent, and with the outside world only through expeditions for the north pole or an occasional visit from a whaler. The latter source of intercourse has almost ceased, as the whales have migrated to more inaccessible waters. Before explorers visited this part of the world, the natives lived in a most primitive way. Their weapons and sledges were made of ivory and bone. Wood and iron were unknown to them until the white man visited them. These two articles are appreciated by them, now, more than any other. From time to time, they have also been supplied with the most necessary implements—knives, needles and scissors. Of the luxuries, they have learned to appreciate coffee and tobacco. Their diet, clothing, and manner of living remain unchanged. The number of Eskimos on this part of the Greenland coast vacillates. Doctor Kane estimated their number at 143. Peary,

in 1892, visited all of the settlements and counted 253. On this trip, we visited all of the settlements and their present number does not, certainly, exceed 175.

Their Origin

These strange people have no idea where they came from. They have not even, like most primitive races, a legend as to their origin. When questioned on this point, they invariably point north without having the faintest perception of what this means. It is more than probable that they are the remnants of a once powerful race, the oldest inhabitants of the western hemisphere.

It is claimed by some that the Eskimo is akin to the American Indian, and, consequently, of the same origin. Food and climate might have contributed much in changing the physical organization and mental state of these people during the course of many centuries; but a careful study has convinced me that they possess many striking physical and mental characteristics foreign to our Indians. On first sight, they resemble in stature and facial outlines more closely the Chinese than any other race. When I traveled through Alaska a number of years ago, I made the same observation and noticed that the Alaska Indians take more kindly to the Chinamen than the Japanese or any other of the yellow races. I have seen no closer resemblance between any two people than the Buriates, in Siberia, and the Smith Sound Eskimos; and I feel confident that they have a common racial origin.

Captain McClintock describes these people as



BURIATE AND WIFE
Siberian tribe resembling the Esquimo

he saw them in 1852. "My first interview with these northern Eskimos was in 1852, when commanding H. M. S. 'Intrepid;' then, as now, the men came off on the land ice to us; they appeared to me to be very little people, with large, flat faces and a sprinkling of beard and mustache, apparently in sound health and perfectly happy. A party of us walked to the land to visit their abodes and the female population; one vociferous old hag met us at the beach, and seemed to be introducing us to all the rest, and gave us a detailed account of their relationships and accomplishments. There were three tents only; words can scarcely describe the filth and wretchedness of such abodes. The sealskins composing the tents, and the skins of various sorts which served for beds and blankets, were scarcely half dressed, and emitted an intolerable effluvium, whilst the ground in every direction was strewed with bones and decaying animal matter. The dresses of the women were covered with blubber and soot, their faces and necks black and greasy, and eyes bleared from constantly superintending the slow process of cooking in a stone vessel over a smoky blubber lamp. It is, indeed, hard to realize their state of existence. They have no vegetable food whatever; neither wood, nor metal; no canoes; not even a bow; and yet they exist in a mean annual temperature of 34° below the freezing point, further north than any other known people, and where the sun is absent for one third of the year!"

This is a fairly good pen picture of the Smith Sound Eskimos as they appear and live today. Sir

Clement Markham believes these people are remnants of an ancient Siberian tribe, the Onkilon, having been driven out by the Tartar invasion in the middle ages, via New Siberian Islands. I can not escape the conviction that the Smith Sound Eskimos are direct descendants of the strong Siberian tribe known as Buriates, and that they found their way to this remote part of the world in consequence of persecution many centuries ago, long before Greenland was inundated with ice. The similarity of these two people in stature and facial expression is too strong to escape conviction for one who has made a study of them in their own countries. It has also been known that the ancient stone dwellings discovered in some parts of Siberia bear a close resemblance to the igloos of the Eskimos. The affinity of the Eskimo for the Chinese was also well demonstrated by the actions of the little Eskimo girl that Mrs. Peary took home with her in 1894. The first thing that attracted her serious attention was a Chinaman she saw in the street, while the many new things she saw in the great city of New York, that usually interest children, made little impression on her.

Physical Characteristics

The Mongolian type of the Eskimo is pronounced. Obliquely set eyes are common, but not constant, and the obliquity is never as marked as in the Chinese and Japanese. The Eskimos are below average size, with thick set, short legs, large head and chest, small, even, delicate feet and hands. The

face is square, and flat, the molar bones prominent, and the lower jaw well developed. The nose is well shaped, often aquiline, not unusually wide, and nasal orifices are large. The eyes are invariably brown and small, meek and friendly in their expression. The eyebrows, eyelashes, and beard, and mustache are scanty. The cheeks are prominent in many of them, more especially the children and young women.

The color of the skin is slightly dusky, but less so than in the orientals, and that of the face has a slight coppery tint. The hair is jet black and straight, flowing loosely over the shoulders in men; tied in a knot behind in women. A tendency to corpulency is observed, even in children and young boys and girls. In all of them the subcutaneous fat is abundant and the circulation of the skin very active. Obesity is the Eskimo's ideal of beauty. eary refers to a woman four and a half feet in height who weighed 300 pounds and who, by general consent, was acknowledged by the men as the beauty of the tribe. The women are much smaller than the men; the average height of the former does not exceed five feet, and of the latter five and a half feet.

To the foreigner, the most enviable parts of the anatomy of the Eskimo are his hair and teeth. The growth of the hair of the scalp is luxuriant, and even time deals gently with it, as it does not turn gray until advanced age, and then the change from black to white is a very slow one. I failed to find even indications of baldness in any of the Smith Sound Eskimos. Captain McClintock met with

one bald Eskimo by the name of Kallek, whom he considered as a remarkable case among the natives with whom he came in contact. He lived in isolation with three families, near Lancaster Sound, and had come to Greenland over the ice with dog sledges.

The teeth of the Eskimos are simply perfect—as perfect as in the only domestic animal they know and own—the dog. They are regular and, in the young, of a pearly whiteness. Caries and toothache are unknown. I examined the mouths of a number of Eskimos over sixty years of age without finding a single tooth missing; every tooth was present and firm. The only perceptible change the teeth had undergone was a gradual wearing away, from prolonged usage, until the crown projected but slightly above the firm, healthy gums.

Female beauty must not be looked for here, although Peary, in his book, reproduces the photograph of one who is perhaps entitled to this claim. Regular features among women are the rare exceptions. Beauty, however, is a relative term, as what one considers a beautiful face another calls homely; and it is well it should be so in the very nature of things. A distinguished poet says:

> "Beauty is nothing else but a just accord and mutual harmony of the members, animated by a healthful constitution."—*Dryden.*

All of the Eskimo women are certainly splendid specimens of a healthful constitution, and their soft brown eyes, pearly teeth, and luxuriant black hair contribute much to their charms. The average



FEMALE FORM

unprejudiced observer, however, would say of the majority of them:

> "When the candles are out all women are fair."
> —*Plutarch.*

In favor of these women, it must be said that they do not sail under false colors; they appear as they are, natural, even in the presence of strangers.

> "We found her dressed without gold or trinkets
> as ladies who are dressed only for themselves,
> set off with no female paints and pastes."
> —*Terentius.*

The women dress the skins, dry and raw, by chewing to render them pliable and soft, a neither pleasant nor easy task, but one which they perform with patience and perseverance. The teeth are, for the Eskimo, a veritable third hand, as the women use them in removing from the skins all muscle and adipose tissue; and the men always employ them in tying knots, relying upon them more than on the hands in determining the force necessary to tie the knots securely. The men are strong, but not noted for prolonged physical endurance. Most of their work is done in kayaks and on sledges, limiting the exercise largely to the upper extremities, which may explain the shortness of the legs as compared with the upper extremities. The chest is unusually well developed; a fact which admits of the same explanation.

The breathing power of these people is remarkable, approaching almost that of their dogs. I have seen, repeatedly, during my hunting expeditions men ascend the steepest mountain to a height

of one to three thousand feet in a continuous run without showing the least embarrassment of breathing. As the Eskimos have always lived largely on raw flesh and make frequent use of their teeth in their daily vocations, the lower jaw of men and women is large and strong, adding its large share to the characteristic physiognomy—flatness and angularity of the face. They do not use oil either for the hair or surface of the body. Combs are unknown, and the hair is kept from matting by separating and smoothing it with the hands. The absence of baldness is undoubtedly due to the free exposure of the hairy scalp during the summer and the wearing of a loose hood during winter.

In contrasting the Eskimo with the American Indian, the difference is to be found less in their physical and physiognomic features than the disparity of their mental status and peculiarities.

Mental Status

The Eskimo is a child throughout life, contented, happy, free of care, and delights in childish sports. His habits and conditions are hardly above those of animals. His only concern is the food he eats and the clothes he must wear to protect himself against the rigor of the climate he lives in. He is intelligent, ingenious and thoroughly humane. Jealousy and selfishness affect him less than the majority of human kind. He is hospitable to a fault, and, as a rule, honest in his dealings with his own kind and the strangers with whom he comes in contact.

The physical aspects and physiognomy of all Indians are very much the same from Alaska to Patagonia, influenced of course by climate, diet, occupation, and habits. The face of the Indian is stoic and expressive of a surly, unsympathetic earnestness, sorrow, and even melancholy. Under ordinary circumstances, the facial expression remains fixed. The lower in the social scale, the more indifferent and inexpressive becomes the facial mirror as a reflector of the soul. Not long after the discovery of the new world, owing to reports made by the early explorers, the question arose whether or not the Indians belonged to the human race. This doubt was settled in the affirmative, by a papal decree, in 1537. The Indian is not, nor will he ever be, an equal of the Caucasian race in mental qualities, and his general intelligence is inferior to that of the Eskimo. His special senses, like those of the Eskimo, are extremely acute—animal-like; but his reasoning power is slower and more limited than that of the Eskimo.

In courage, the Indian is far above the Eskimo. He is revengeful and proud, while the Eskimo is innocent, peaceful, meek and friendly. The Indian has no fear of death; the Eskimo loves his land, his home, and his people too dearly to take unnecessary chances on his life, and the life after death has no charms for him. The Eskimo dreads the word "*sinipo*" (death), and avoids this word whenever he can, and speaks of the departed as having gone far away, and not as having died; while the Indian believes them to be in the enjoyment of a better

and happier life in a land teeming with the choicest game. This aversion to death and to the very use of the word is not of recent origin, but was well known to the early explorers.

Captain McClintock, in meeting some Eskimos in Boothia, relates the following: "I inquired after the man who was furnished with a wooden leg by the carpenter of the 'Victory;' no direct answer was given, but his daughter was pointed out to me. Petersen explained to me that they did not like alluding in any way to the dead; and that, as my question was not answered, it was certain the man was no longer among the living." Members of our party had the same experience when they inquired about men whom they knew and who were not found among the living. All the information that could be obtained was a wave of the hand, indicating that they had gone far away.

Another mental peculiarity of the Eskimo is, that he does not like to be cross-examined on any particular point. Making one statement he considers sufficient, and, when not understood, he soon becomes out of patience and will refuse being questioned any further. The childlike nature of the Eskimo is best shown by his thoughtlessness and disregard for the future. He trusts to luck or chance in all things. The Indian, lazy as he may be, has some concern for the future, and makes provision for the same. He cures meat by drying, and stores it away during the hunting season to last him in the time of want. The Eskimo is not as far-sighted, and has no idea of economy in times of



AN ESKIMO BELLE

plenty. The Indian is moderate in eating; the Eskimo is a veritable glutton as long as he can find something to eat. The amount of food an Eskimo can dispose of exceeds belief. We saw many instances of this kind on board the "Erik," where the Eskimos were supplied with food from the galley. Their favorite dish was pork, and the amount they consumed was fabulous. I observed a little girl gorging herself with salted pork and then she went to the water tank and drank at least two quarts of water without any ill results following. She at once laid down on the deck and slept for hours without waking, and the next day showed no decrease in her appetite.

I will let Capt. Parry speak on this subject: "To the capacity of an Eskimo's stomach there seems scarcely any limit. Some experiments on the subject made in the 'Fury,' and carefully noted, produced the most surprising results. A youth named Toolooak stands recorded as having, in twenty-one hours, received into his stomach ten pounds four ounces of solid food, a gallon and a pint of water, with more than a pint of soup. Captain Lyon pitched against him Kangara, who, in nineteen hours, finished nine pounds fifteen ounces of solid, and a gallon and a half of fluid." Most of the meat is eaten raw. They cut it in long strips, introduce one end in the mouth, swallow it as far as the powers of deglutition allow, and then cut off the protruding portion close to the lips and repeat the same act until they can eat no more. The Eskimo has no regular hours for meals. He, like animals, eats when he is hungry and his

stomach appeased, he lies down and sleeps. Courage, defiance of death, the most conspicuous traits of the character of the Indian, are at low ebb with the Eskimo. Under no circumstances will he make use of his kayak in rough weather. He values his life too dearly to battle with a rough sea. We cannot say of him:

> "A braver choice of dauntless spirits
> Did never float upon the swelling tide."
> —*Shakespeare.*

He could not be made to believe that

> "To die is landing on some silent shore,
> Where billows never break, nor tempests roar;
> Ere we feel the friendly stroke, 'tis o'er."
> —*Garth.*

His occupations are few—to procure food and clothing. He is satisfied with little and has absolutely no inclination to acquire either wealth or influence. His temper is never ruffled, even in the face of want. He leads a tranquil life, free of all care and worry, the very ideal of a happy life.

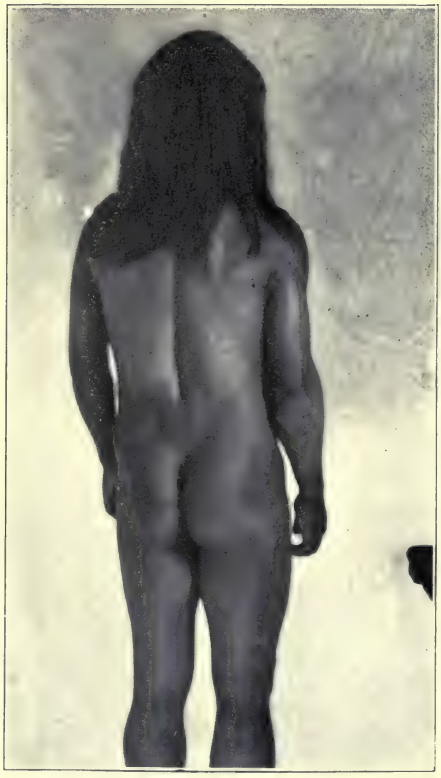
> "Let thine occupations be few, saith the sage, if thou would'st lead a tranquil life."—*Marcus Aurelius.*

and

> "Remember this,—that very little is needed to make a happy life."—*Idem.*

When he has plenty he never thinks of the future, but eats and eats until he can eat no more, and by doing so confirms the truth of the old saying:

> "The appetite of the belly and the throat are so far from diminishing in men by time that they go on increasing."—*Cicero.*



FEMALE FORM

The Eskimo is

> "Born for the gratification of his appetite,
> and not for the acquisition of glory and honor."
> —*Cicero.*

When want and starvation stare him in the face, he is patient and uncomplaining. The improvident nature of the Eskimo is responsible for much suffering and many deaths from starvation. Doctor Kane relates that, in 1830, the boat-crews from a whaler, which had escaped the many disasters of that year, landed at the Cape York Eskimo settlement. They were surprised as they approached the tents, to find no beaten snow-tracks about the entrance nor any indications of the presence of human beings. The riddle was explained when they lifted up the skin curtain that served the double purpose of door and window. Grouped around an oilless lamp, in the attitudes of life, were four or five human corpses, with darkened lips and sunken eyeballs, but all else preserved in perennial ice. The frozen dog lay beside his frozen master, and the infant, stark and stiff, in the reindeer hood which enveloped the frozen mother. Some three or four neighboring huts presented the same ghastly sights in their icy interior. Starvation, during an unusually severe winter, was undoubtedly the cause of the complete annihilation of the entire population of the settlement. This is only one of the many catastrophes which have decimated the Smith Sound Eskimos, and brought on, in most instances, by the improvidence of the natives.

The Eskimo is kind and affectionate. Toward

his family, relatives, friends, and strangers, he is liberal. As long as a piece of blubber is in the camp, no one suffers. Widows, orphans, the sick, the aged, and the crippled are well taken care of and are given their full share of food and clothing.

The Eskimo has a good memory for faces, localities, and incidents. He is ingenious and, like the Chinese, a good imitator. Many of them can make a good sketch of their coast line and can draw rude representations of the animals which frequent their coast. Their sense of beauty is blunted. They have no appreciation, whatever, of the beauties of nature. I have never seen one of them pick a flower or pay any attention to the beautiful flora of their otherwise dreary country.

Social Life

The social life of the Smith Sound Eskimos is the simplest of all the peoples I have seen in many parts of the world and under the most varying climatic conditions. These people, reduced in number to less than 200 at the present time, living in small settlements along the coast from Cape York to Etah, have no government of any kind. They constitute a family rather than a tribe, having everything in common. The inhabitants of the settlements, seldom exceeding twenty-five persons, living in from two to five igloos or as many tents, lead an ideal social life, with no laws to restrain their conduct toward others—depending entirely on the dictates of their conscience.

Here is one of the best places to study human



MY-A, THE ADONIS OF THE TRIBE

nature uninfluenced by civilization; to study the conduct of man, who recognizes no government and has never experienced the force of law. Here is a people that has neither a national nor tribal government; a people whose will is supreme and governs all of their affairs. Real estate and personal property are unknown. They lead a nomadic life and erect their igloos and pitch their tents wherever the prospects for successful hunting are most promising.

Their only needs are food and clothing. This is a part of the world free from politics, and a place where the value of money is unknown. These Eskimos have no written language, and their thoughts are expressed in not more than 300 words. The tranquillity of these communities is not disturbed by the voice of steam, the ticking of the telegraph, the ringing of the telephone, or the reading of the daily news. The excitement of elections, grafts, insurance scandals, and bank failures have never disturbed the calmness of the Eskimo mind.

The lazy ones enjoy the benefits of the labor of the more active and no complaints are made. As there is no property ownership, stealing is out of the question. They borrow, but they cannot steal. Some of the early explorers accused these Eskimos of stealing, a charge which was undoubtedly well founded at that time; but, on the whole, they are honest. On our entire trip not a single act of dishonesty was discovered. Many times I dealt out little presents, and in almost every instance the recipient, by motions, wanted to know if I intended him to keep it—a very good indication of honesty.

The low grade of thinking power is best shown by the lack of foresight in making adequate provision for the future, and the limited vocabulary of the language. The natives of the South Sea Islands have no need of storehouses, as nature favors that climate to such an extent that the fruit and fish supply never fails in furnishing them with an abundance of food every day throughout the year. This is not the case in Greenland. The best hunting season here is in early spring when the ice breaks, and seal and walrus come to the coast in great herds during the breeding season, after which most of them leave and migrate farther north. At the time we were at North Star Bay, the best hunting season was long past, and in visiting the settlement, consisting of about twenty-five persons, we found only a very small amount of meat left, and there were thirty dogs picketed there, howling for something to eat. The reindeer had left that part of the coast, at least for a time; hares were few; ptarmigan none; seal few; the walrus gone; the powder supply for old muzzle-loading guns had given out—and it is hard to tell what those poor people would have done, without outside help, to keep them from starving during the coming winter, so near at hand. Had these people realized the uncertainty of their food supply, they would have preserved meat when it was plentiful; but they missed that opportunity and were then facing want. The squirrel buries nuts in the fall to last during the winter, but these children of the North live without any forethought, without realizing the uncertainties of the future.



TUNG-WE, TALLEST MAN IN TRIBE

Centuries of hardships have not succeeded in impressing upon them the truth of

> "The more we deny ourselves the gods supply our wants."—*Horatius.*

Childlike, they

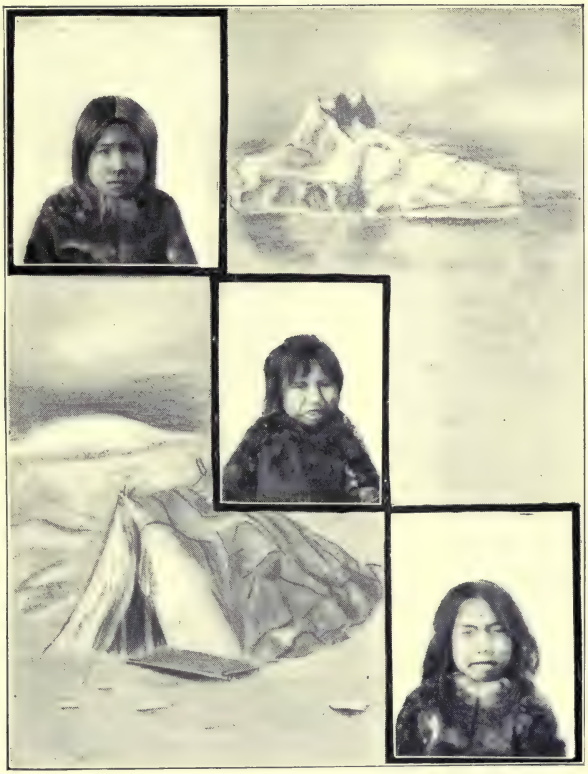
> "Shun to seek what is hid in the womb of the morrow, and set down as gain in life's ledger whatever time fate shall have granted thee."—*Idem.*

The lack of anything like a good mental capacity is also shown by the poverty of the vocabulary of their language. The language, called Karalit, is a synthetic one, made up of few words. The pronunciation of some of the words is exceedingly difficult, and it is almost impossible to represent them correctly in our letters. This is why the different explorers who remained long enough with the natives to acquire their language, do not spell the words alike, as they had to be guided entirely by sound in reproducing them in our letters. For things new to the Eskimo, such as are brought to them by foreigners, they are incorporating English words in their language. The guttural sounds, of which there are many, require special training of the pharynx and tongue. The same word differently pronounced may mean many different things. In 1851, Egede Kleinschmidt put the language in grammatical form, a task which required much labor and an intimate knowledge of the language.

It is very fortunate that, so far, the natives have had but few opportunities to tempt them to indulge in alcoholic liquors. In the Danish settlements,

the sale of intoxicating drinks is strictly prohibited by law. From what I have seen of the Eskimos of this part of Greenland, I am confident, that, if given a chance, they would equal the Indians in their love for liquor, and that the results of such indulgence would be equally disastrous.

The marriage ties are very elastic. Virtue, as we interpret this word, does not exist among the Eskimos. As the husband has to supply the family with food and fur, for clothing and bedding, he finds it difficult to support more than one wife and a limited number of children; hence polygamy, although not considered wrong, is seldom practised. I saw only two men, both of them on the shady side of life, who took pride in the fact that each of them had two wives. The only requirement exacted of a young man who wants to take a wife is to be a good hunter, a practical proof that he can take care of himself and family and not become a burden on the community in which he lives. If he has killed big game, a polar bear or a walrus, his way to the wedded state is an easy one. Long courtships are superfluous. Kissing, even among lovers, is unknown. Touching with the tip of noses is here in vogue instead of kissing, and is the expression of the most tender feeling the Eskimo knows of. When a young man makes up his mind to find a mate, he selects his bride from the available material and, if she consents, he takes her to his igloo or tent without any previous ceremony whatever. After this kind of mating, he supplies her with the necessities of life, and she, in return, makes and mends his clothes,



ESKIMO WOMEN

Akatingua, Otero, Avarme

dresses the fur, and attends to the oil-lamp and whatever little cooking there is to be done. No promises are made, consequently none can be broken. Occasionally the event is celebrated by chanting the monotonous native song and an extra ration of blubber. If two suitors have their eyes on the same girl, the matter is settled in her presence by a contest of strength. They lock elbows, and the one who straightens out the forearm of the other is the winner and claims the bride. What counts much in the estimation of the girl is skill and success in hunting, and, as the best hunter is usually the strongest, the result of the test is acceptable to her. Such contests are simply a repetition of the old, old story:

> "Why, the weakest always goes to the wall."
> —*Plautus.*

The test is a fair one and the choice of a mate is decided without bloodshed or even an ill-feeling. If the sea of married life becomes boisterous, the husband brings back his wife to where she came from; but, in this event, he is expected to do something toward her future support, usually by presenting to her family a kayak or an equivalent in fur, until she is mated again. The marriage, or as it should be termed here, mating, is not necessarily meant for life. The husband regards his wife as his property to be disposed of as he deems for his best interest. The woman is not the equal of her husband. She is always subordinate to his will. Captain Ross, in 1830, found matrimonial affairs about the same as they exist today. "Their matrimonial arrangements are more singular, and in

some points more exceptionable, than could naturally have been expected. Convenience and interest seem the ruling motives. More culpable accommodations are sometimes procured by polygamy, even in the form of two men having one wife and by an exchange of wives, either permanent or temporary." It is not at all uncommon for men to exchange wives for a year at the annual gathering in the spring at Petrowik, near Murchison's Sound. It is generally understood that this arrangement should only last a year, but sometimes this change proves so satisfactory to one of the male parties that he refuses to take back his former spouse. This was the case with Mya, one of the best looking and most intelligent men we met at North Star Bay. A few years ago he made such a trade; but when the time expired, at the end of the year, he refused to give up his friend's wife for his own, well satisfied that the other fellow got the worst of the bargain. As he was the stronger of the two, there was nothing left for the other man to do but to be content with the new arrangement forced upon him by his superior. The woman in question came on board with two little children and an infant in her hood. She was anything but a beauty, but must have possessed qualities which commended her to her new alliance which the first one lacked.

Things that agitate our divorce courts were settled here in the simplest possible way and without any sensationalism. Both husband and wife appeared to be happy and were about the best dressed persons in the tribe. Even this delicate and somewhat



ESKIMO WOMEN ON BOARD THE "ERIK" FROM LITTLE OMENAK

unusual affair in the tribe did not ferment any trouble. The weaker submitted to the stronger and harbored no ill feeling, much less revenge. The Eskimo loves family life. If he is absent only for a few days on a hunting expedition and his wife, for any reason, cannot accompany him, he takes the wife of one of his neighbors with him and brings her back at the end of the trip, and such acts do not disrupt friendship or good feeling.

> "How many things, both just and unjust, are sanctioned by custom."—*Terrence.*

The peaceful disposition is one of the most prominent virtues of the Eskimo. Quarrels and fights are almost unknown. I never heard an angry word or saw an angry mien during the whole time I had an opportunity to observe this interesting people. Troubles of some sort or another will arise in any community. As there is no such thing as exclusive ownership of property, as marital relations are dealt with so leniently, and rum plays no figure in the community, questions of serious dispute seldom arise. If they do, the oldest man of the tribe acts as judge, lawyer and jury, and his decision is always respected and final. This peaceful disposition and submission to custom are in direct contrast with the inner life of most of the primitive races.

Murder and robbery are extremely uncommon. A few well authenticated instances of murder, however, have occurred. When Captain McClintock arrived at Cape York, he came face to face with a real Eskimo murderer. "Petersen pointed out to me a stout fellow, with tolerable sprinkling of

beard and mustache. This worthy perpetrated the only murder which has taken place for several years in the tribe. He disliked his victim and stood in need of his dogs; therefore, he killed the owner and appropriated his property! Such motives and passions usually govern the unsophisticated children of nature; yet, as savages, the Eskimos may be considered exceedingly harmless." Peary relates a case of murder on Saunder's Island. One of the men wanted the wife of another and he obtained her possession by pushing the man off a cliff into the sea when they were engaged in gathering birds' eggs. The couple are both alive and apparently happy at the present time.

Infanticide is, on the contrary, not uncommon. Doctor Kane knew of a young couple, at Etah, who buried their first child alive in the winter of 1855. Even now, it is customary, when a mother dies with an infant in her hood, to strangle the latter after her death and bury it under the same pile of stones with the mother. The popular impression still prevails that the infant must accompany its mother into the other world. The war spirit has never dominated this race. Years ago, when their country was invaded by Eskimos from Baffin's Land, they made but little resistance, seeking safety in flight.

In speaking of the Eskimos living in the Danish settlements, Doctor Kane makes the statement that, before the missionaries came, murder, incest, burial of the living, and infanticide were not numbered among crimes.



ESKIMO DOG TEAM

Sports and Amusements

Every race has its own sports and amusements influenced by temperament, climate, and social conditions. Athletic exercises and mental diversion are well calculated to keep body and mind in a healthful, active condition,

> "Encourage such innocent amusements as may disembitter the minds of men and make them rejoice in the land agreeable satisfaction."

The South Sea Islanders have their water sports; the Indians, lacrosse. The Eskimo, who does not see the sun from October 14th to February 14th, is especially in need of active exercise and diversion, as the intense cold and the absence of the chemical actinic, and physiological effects of the magic rays of the sun make the arctic night very depressing, physically and mentally. Wrestling, jumping, tracking by the fingers or with locked arms, pushing heel to heel in sitting posture, dealing and receiving alternate blows on the left shoulder, and carrying heavy stones are among their trials of strength.

I saw a number of wrestling matches and they reminded me very much of what I saw of this sport in Japan. Kayaking is the great national sport. The art of managing a kayak is acquired during early childhood and the ambition of every boy is to master it at an early age, to excel his playmates, and soon to become a peer to his father. These aquatic sports are very exciting, as the kayakers test speed and all kinds of rapid maneuvers, including jumping over the kayak of one of the contest-

ants. The breaking in of new dogs to sledge duty and practising with the long dog-whip afford healthful bodily exercise. The light-hearted, care-free Eskimo ought to be fond of play and sport. During the summer the warm sunshine, the blue sky, the frolic of myriads of sea-fowl on water, cliffs, and in the air, after the depression caused by the long winter night, ought to rouse his soul to cheerfulness and merriment. Springtime, with its plentitude of food, when he leaves the dark, icy igloo to enter upon an out-of-door life in tents, should awaken a desire for amusement.

Dancing is one of the pastimes of all primitive people, and the Eskimo is no exception. The dance of the Smith Sound Eskimos is the same now as it was centuries ago. It consists of a swaying motion of the body to the tune of a drum made of seal skin, beaten with the fingers, and accompanied by a most monotonous chant, consisting of a constant repetition, of "*Amna ayah*," their song. The Eskimos, men and women, have fine voices, but their low degree of mentality has not taught them how to use them properly. In the Danish settlements, they have adopted a few of the simplest and most common European dances.

The children amuse themselves with crude playthings, figures cut out of ivory, bearing a faint resemblance to some of the animals which inhabit that region. I was very much astonished to find a small boy practising marksmanship with a small cross gun. The body of the gun was made of wood, the bow of bone, and the string of walrus hide. It

was a mystery to me where the idea came from, for the construction of this weapon. Men and women are like children and enjoy their simplest plays and laugh heartily on the occurrence of most trivial incidents. They would enjoy themselves immensely with things that amuse and please our little children. But without song, without dance, without music, without sport,

> "The people, free from cares, serene and gay,
> Pass all their mild, untroubled hours away."
> —*Addison.*

The real national feast takes place December 22d, every year, when the natives dance, sing, and eat to excess. Another national affair is the annual meeting of the inhabitants of all settlements at Petravik, near Cape Atholl, where the ice breaks up first in the spring, and where seal and walrus make their first appearance. After the hunting season is over, the people leave their ice igloos and in groups of from five to twenty-five leave for their summer camps.

Education

> "Not to know what happened before one was born is always to be a child."—*Cicero.*

Nearly every primitive people have, at least, a legend relating to their origin, and some hero or heroes who are venerated and very often worshiped. The Eskimos have no history, either real or legendary. Heroes and hero-worship are unknown here. They manifest no interest in the past and care nothing for the future. They live in the present and enjoy

themselves the best they know how and let the to-morrow take care of itself. Most of them have only a definite idea of numbers up to five; after that everything is *amashuali* (many). Others can go as far as twenty, the number of fingers and toes. The Indian keeps track of time by the moon; but that clock of the sky is useless in Greenland, as it would come to a stand still during the four months' reign of the midnight sun. Their timekeeper is the breaking up of the ice in the spring, to them the greatest event of the year, as it opens the season of best hunting for walrus and seal. The book of nature is their only text-book, and they study, most diligently, that part of it which relates to their subsistence.

The Eskimo knows all there is to be known concerning a practical knowledge of ice, the habits of the animals which serve him for food and clothing, and how to secure them by the simplest methods of the chase. The women are very skilled in the use of the needle, using the tendon of the narwhal as sewing material. The symmetry of the clothing for themselves, men, and children is admirable. They dress the hides for clothes, boots, kayaks, and tents, by chewing them.

Experiments have been made to educate them, but with very few exceptions, they have proved an absolute failure. During one of the summer trips to this region, Mrs. Peary brought a young Eskimo girl home with her. She lived one year with the family; but all efforts to educate her were fruitless, the only thing she would do was sewing, which she considered her only legitimate occupation. From

the very beginning, she was homesick, and at the end of a year she was glad to return to her people. I saw this woman at North Star Bay, now living with her second husband, and the mother of three children. She was the dirtiest and wildest-looking woman of the tribe, but happy among her own people. Although she had some knowledge of the English language, she obstinately refused to speak except in the native tongue. This and similar instances only go to prove that:

> "Men's character and habits are not influenced so much by the peculiarities of family and race as by the physical features of their native land and their mode of life—things by which we are supported and by which we live."—*Cicero.*

Art

The Eskimo is not artistically inclined, and his talents in this direction are very limited. There is much here that should develop a taste for the beautiful; but the Eskimo is not receptive for anything else than what pertains to an animal life. The sea, the mountains, the valleys, rocks, and cliffs, the glaciers, the sailing icebergs, the exquisite little flowers, green grass, and moss, the rocks painted in all colors by minute color-producing plants, the myriads of birds, sailing gracefully through the air, the midnight sun in summer, the moon and countless stars during the long winter night, and the firework display of the aurora borealis are things and exhibits which should stimulate and nourish the artistic sense; but to all this the sharp eye of the Eskimo is blind.

The Japanese delight in their miniature flower gardens, potted flowers, and dwarfed trees; the Polynesian women appear tidy and attractive in their floral decorations; the Indian women make ornaments worthy of their race; but the Eskimo women show no appreciation, whatever, of the beautiful little flowers which ornament the tundras, rocks, and stony plateaus. Carving in ivory, representing different animals, women, and children, for children's toys, is about the extent of art as practised in the high North. Drawing of maps showing the coast line is an accomplishment of many of those who travel extensively. The kind of life led by the Eskimos is averse to art, as:

> "The inventions dictated by necessity are of an earlier date than those of pleasure."—*Cicero.*

Religion

> "Nature herself has imprinted on the minds of all the idea of a God. For what nation or race of men is there that has not, even without being taught, some idea of God."—*Cicero.*

The Eskimos north of the Danish settlements have never been given the benefit of religious instruction, and have no fixed ideas concerning creation and the existence of a living God. "They believe in a future world, the employments and pleasures of which, according to the usual creed of savage races are all sensual. Their idea of heaven is very much the same as that of the Indians. The soul descends beneath the earth into various abodes—the first of which partakes somewhat the nature of



MELVILLE BAY—SEAL HUNTING ON LAND ICE

a purgatory; but the good spirits passing through it find that the other mansions improve, till at a greater depth they reach that of perfect bliss, where the sun never sets, and where by the side of large lakes, that never freeze, the deer roam in large herds, and the seal and walrus always abound in the waters." (Parry and Lyon.) They really have no religion, no idols, no worship. Crude as their ideas are on this subject, they recognize the existence of a good and evil being. Their highest being, "*Silla*" (air or sky), is supposed to rule everything, and rewards man according to his actions. Other divine beings are "*Mahina*" and her brother "*Alminga*" (sun and moon), who preside over the seal hunt.

The Eskimos are extremely superstitious and believe in the existence of ghosts, which manifest themselves in the air, fire, mountains, war, and storms. The mightiest of them is the good spirit, *Torngarsuk*, whose wife has the sea animals in her power. They do not worship their deities, and only observe one feast, the sun-feast, the 22nd of December, when they dance, sing, and eat to excess.

Their superstition is engendered and nourished by sorcerers and fortune-tellers, called *angakoks*. Commander Peary, who has seen more of real Eskimo life than any one else, living or dead, informed me that it was one of the most difficult things to gain information from the Eskimos concerning their spiritual life. It is probably exceedingly difficult to make them understand when questioned on this subject and they are decidedly averse to talking about it. He thought it would be necessary for one

to live among them for at least six years before he could speak authoritatively on this subject. If anything contrary to the wish or expectations of the Eskimo happens, he attributes it to an evil spirit which, I was told, they imagine in the form of a hideous being. He sharpens his knives and goes out to find and kill the monster. Superstition is as strong among these people as in all other primitive races, and from which many nations, which for centuries have lived in the light of civilization, cannot be excluded as:

"Custom is almost a second nature."—*Plutarch.*

Among the savages, it is only natural that want and afflictions of all kinds should be attributed to some unseen mysterious evil being, whatever that may be called; and on the other hand, the spark of religion, instilled in every soul, causes man to believe in a supreme being who has the power to ward off misfortunes of all kinds and bring success, peace, and happiness. It is in days of darkness, misfortune, and disappointment that the soul takes flight to a supreme being and prays for his favor. This is not only true of the pagan, but also of the professed Christian for:

> "When we are in misery, there springs up a reverence of the gods; the prosperous seldom approach the altar."

For want of a knowledge of a living, merciful Almighty God, the Eskimo, when in distress, turns to the spirit of his father. This is done in the form of a wailing, a monotonous, improvised chant, led

by the angakok, and in which all join the chorus. They have no priests, no temples, no altars, no one to lead a regular worship. The prayer is the spontaneous outburst of the afflicted, distressed souls. The dark, icy igloo or the tent, devoid of everything that would remind one of a sacred service, is the meeting-place and the non-meaning words that are repeated over and over again are used to express the anguish of a soul that seeks superhuman help when man's efforts have proved inadequate or have utterly failed.

Burial of the Dead

The Greenland coast of Smith Sound is made up of solid rock, with here and there a thin layer of soil, barely enough to nourish the scanty vegetation, and nowhere deep enough to dig a grave. Above-ground burial is, therefore, not a matter of choice, but of necessity. The Eskimo graves are made up of a pile of stones, under which rest the remains, and, under it and around it, the belongings of the deceased. Peary gives a good description of the method of burial. "The body, fully dressed, is laid on its back on a skin, and some extra articles of clothing placed upon it. It is then covered in with a low stone structure, to protect the body against the wild animals. A lamp, with some blubber, is placed close to the grave. If deceased has any personal property, such as weapons, kayaks, etc., they are also placed close by, and his favorite dogs, harnessed and attached to the sledge, are strangled to accompany him into a new land of hunt-

ing. If it is a woman, her cooking utensils and frame on which she has dried the family boots and mittens are placed beside the grave. If she had a dog it is strangled to accompany her; and if she had a baby in the hood it, too, must die with her."

"If the death occurred in a tent, the poles are removed, allowing it to settle down over the site, and it is never used again. If death occurred in an igloo, it is vacated and not used again for a long time." No ceremonies take place during the burial. The Eskimos appear to have little reverence for the places of the dead. I saw a number of graves, and in several of them found the bones exposed, the cover of stones being entirely inadequate.

It is related that if a man dies, his wife isolates herself in her tent or igloo for a number of days, sitting statue-like, her eyes fixed on the wall opposite her.

Doctor Kane speaks of weeping for the dead. "They weep according to an established custom, when one begins, all are expected to join, and it is the office of courtesy for the most distinguished of the company to wipe the eyes of the chief mourner. Failure of a hunt may bring about such a weeping match."

Eskimo Life

Living in a stern climate with almost half of the year surrounded by darkness, the Eskimo has preserved his inborn cheerfulness and enjoys life better than most people who inhabit more favored countries. Although he has lived in this land of perpetual ice and snow for unknown centuries, in almost

complete isolation, he retains many of the physical characteristics of his ancient Asiatic origin. The intense cold, absence of sunshine six months out of the year, the ever-present ice and snow have somewhat bleached the skin, but have not succeeded as in some of the arctic animals, in changing the color of the hair from black to white. The luxuriant jet-black hair is the same as when these people left their homes in Asia and sought safety and freedom in their flight eastward. The color of the iris, invariably a soft brown, has undoubtedly been acquired here in the course of centuries.

For an unknown period of time, undoubtedly including the gradual transition of a sub-tropic into an arctic climate, these people have lived in a severe climate, where:

> "Instead of golden fruits
> By genial show'rs and solar heat supplied,
> Unsufferable winter hath defaced
> Earth's blooming charms and made a barren
> waste." —*Blackmore.*

Ever since the ocean of ice destroyed the natural fruit gardens of the once sub-tropic country, its inhabitants have lived exclusively on animal food,—and nature has supplied them with the kind of food best adapted for their climate. The blubber of the whale, walrus, seal, and narwhal is their staple article of food, furnishing the system with fuel, which enables it to battle successfully with the intense cold during the long sunless winter.

The clothing of the Eskimos has undergone a gradual evolution and a long experience has made

it perfect. Although not attractive, and emitting an odor very offensive to one who comes in contact with their wearers for the first time, it meets all the indications exacted by this climate—warmth and ventilation. Nature supplies the fur-bearing animals of this region with a skin and its appendages best calculated to resist, to a maximum degree, the effects of intense cold. The fur of the polar bear, with the hair outside, is an admirable protection against cold, and, as snow and ice do not cling to the hair, it is, therefore, chiefly used in making trousers for men and boys,—shirts, trousers, or loin pieces for women and girls,—and in making a fringe for the collar and sleeves of the jackets for both sexes. Sealskin jackets (*kooletah*) are generally worn during the summer; reindeer and fox skins during winter. The hood is an essential part of the jacket, and a perfect protection for head, neck and face. The fur of the blue fox and reindeer skins are the warmest, and are made into winter jackets. Cured bird skins are much in use for underclothing.

The double boots (*kamik*), made of sealskin, are worn long by women, short by men. The skin of the outer pair is deprived of hair by scraping, the inner pair is worn with the hair on the inside, and the space between the two soles is packed with dried grass. No other kind of footwear is as warm and as comfortable as these Eskimo boots, cut and sewed so admirably by the women, who use the fine dried tendon of the narwhal, exclusively, for this purpose. These boots are not only warm and comfortable, but also absolutely water-tight.

The sleeves of the jacket are wide, so that the wearer can easily withdraw the arms from them, and by crossing them over the chest under the garments they receive the benefit of the body heat. The fur mittens are always in evidence, even during the warmest days in summer, a fact which may account for the smoothness and delicacy of hands and fingers in both sexes. Sox made of the skins of the arctic hare are often worn as an additional protection for the feet. From a hygienic standpoint the greatest merit of the Eskimo dress consists in the ample provisions which have been made for free ventilation. The collar of the jacket is wide; the jacket only slightly overlaps the trousers, and the trousers, the boots, thus securing in these places free, thorough ventilation. In a bending position, both in men and women, the body is freely exposed between jacket and trousers, permitting the air to enter and escape freely. This free ventilation prevents the accumulation of moisture within the clothing, an exceedingly important matter in the make-up of clothing in an arctic climate. Peary and other arctic explorers have found the Eskimo clothing the only one that meets the exacting requirements of that climate during the winter. With all their intelligence, ingenuity, study, and experience, they have been unable to make any improvements on what the Eskimo women have devised and made as the result of centuries of experience.

In their manner of living, they have instinctively obeyed the laws of nature in clothing and food, and unconsciously adapted themselves to their environ-

ments. Food and clothing remain the same as they have been since they have lived here under present conditions. Without knowing it, they have demonstrated by their conduct that

> "Wisdom consists in not wandering from the nature of things, and in conforming ourselves according to her law and example."—*Seneca.*

The absence of any other fuel but blubber and oil makes it necessary to eat most of the animal food raw. Vegetables of any kind have been denied them and yet scurvy has spared them, as this disease, the terror of the early arctic explorers is unknown among them. The raw meat and the abundance of fat in their diet could only explain their immunity to this dread disease. The sailors of many former expeditions often lacked fresh meat, and it was then that they contracted scurvy. Doctor Kane understood, fully, this cause of scurvy and was convinced that fresh meat was the best prophylactic when he said: "Our own sickness (scurvy) I attribute to our civilized diet; had we plenty of frozen walrus, I would laugh at the scurvy."

How easily white men can become accustomed to relish raw meat is shown by the same authority: "The liver of a walrus (*awick tanuk'*) eaten with little slices of his fat,—of a verity, it is a delicious morsel. Fire would ruin the curt, pithy expression of vitality which belongs to its uncooked juices. Charles Lamb's roast pig was nothing to *awatuk.*"

We know how Nansen enjoyed his blood pudding and Captain Bartlett of the "Roosevelt" could subsist a long time on the fresh blood of the seal, which

he can drink with a relish. We, who are accustomed to a mixed diet and cooked animal food, would neither enjoy nor thrive on the ill-smelling blubber, fresh blood, and raw meat, which only goes to establish the truth of:

> "What is food for one man may be fierce poison to others."—*Lucretius.*

I could eat raw whale meat, but when cooked it was turned into a hard, black chip, neither palatable nor nutritious.

The tough skin of the narwhal is considered a delicacy by the Smith Sound Eskimos, and as a specific against scurvy by the Eskimos of the Danish settlements. I found it not at all unpalatable, but it required vigorous chewing to prepare it properly for the act of swallowing.

I have not seen among the Eskimos any indications of rickets, recent or ancient. The mothers nurse their infants until they are two and more years old, unless the milk supply is interrupted, as it is occasionally by another pregnancy. When the babe is three months old, long before the period of teething, they are given small pieces of raw blubber which they greedily swallow whole, as we do oysters. All of the numerous children I saw were in excellent health, and infantile mortality, according to accounts I was able to obtain, is much less than in civilized countries. The child lives during the day in the hood of its mother. In the evening, young and old strip to the skin and then retire to the common family bed, with the children packed in between the adults. This custom of undressing

before retiring is a very important hygienic measure, as the clothes, which are never cleaned nor washed, and dampened by perspiration during the day, are thoroughly ventilated and dried during the hours of sleep; besides, the different members of the family receive the benefits of the body heat of all. The Eskimo women are not prolific. I never saw more than four or five children in one family, and the average is less. It is a well-known fact that, during the first three years after mating, few children are born. Young couples frequently change mates in the first year or two till both are suited, when the union is practically permanent, except for temporary periods, during which an exchange may be effected with another man, or the wife loaned to a friend.

While the sexual passions are strong, there is probably less jealousy here than in any other part of the world. To the credit of these people, it must be said that, while morals do not exist, they are free from any depraved appetites or habits. They do not disfigure their bodies in any way. They are without medicines, either for external or internal use, their angakoks or medicine men make no pretension to cure disease by the employment of medicines of any kind. They are the sorcerers and resort to incantations when called upon to visit the sick. The Eskimos of this part of Greenland are a remarkably healthy people. They are plump and well nourished, with ruddy cheeks and smooth, healthy skin. The subcutaneous fatty tissue is abundant, constituting an excellent protection against the severe cold.

The Eskimos are almost exempt from the numerous chronic, degenerative diseases, such as Bright's disease, tuberculosis, cirrhosis of the liver, apoplexy, diabetes, etc., which cut so many lives short among civilized nations. Their most common diseases are rheumatism and bronchial affections. The causes of death among men come largely under the terse western expression, "with their boots on." Every year claims some deaths among the hunters. Starvation has been a fruitful cause of death in the past. Two epidemics during the last ten years, one of arctic dysentery and the other of lagrippe, have claimed a considerable mortality.

The Eskimo has no fixed time for eating or sleeping; he eats and sleeps when he feels like it, imitating to perfection in these respects the life of the lower animals. Each member of the family eats when hungry, and if the food supply warrants it, eats and eats until he can eat no more, and, when hunger is appeased, lies down and sleeps like the satiated cow in the green pasture. The Eskimo does not subject himself to the teaching of the proverb:

> "Thou should'st eat to live; not live to eat."
> —*Cicero.*

Their indulgence in gorging themselves with their plain food, however, does not result as disastrously as in the case of over-eating and intemperance in civilized countries. The men who enjoy the luxuries of their table, and the frequenters of many banquets, pay dearly for their so-called pleasures, as indulgences of this kind never fail to undermine their health and in cutting life short by

Bright's disease, diabetes, apoplexy, and other degenerative diseases of civilization.

The old time-honored saying remains true:

> "The only way for a rich man to be healthy is, by exercise and abstinence, to live as he were poor."—*Temple.*

A long experience has taught the Eskimo to build his winter home in a way to make it most effective in excluding the intense cold. All of the igloos (winter huts) are built on the same plan. The igloo, made of stone or blocks of ice, is from nine to fourteen feet long and not quite as wide. The entrance is a long, narrow tunnel, which opens into the common room, barely high enough for an adult to stand erect. In the rear of the room is a raised platform for the common family bed, and the balance of the space serves as sitting room, dining room, kitchen, etc. On each side of the entrance are storehouses for the meat. A single small window over the entrance, made of seal intestines, admits a dim light and answers the purpose of a ventilator.

Where the depth of the soil admits of excavation, a part of the dwelling is under ground. The spanning roof is built on cantilever principle. It is made of flat stones and is as firm and unyielding as a masonry arch. The tunnel entrance is never closed; yet no draught or current disturbs the interior. Turf and snow are used on the outside as additional protection against wind and cold. These igloos are occupied from the latter part of September till April or May, when their interior becomes very damp and

they are abandoned for the summer, which is spent in tents. The window and a part of the roof are removed during the summer to admit sunlight and wind, a very wise sanitary precaution. There is no ownership of igloos beyond the period of actual occupation. Seldom a family lives in one place for two consecutive years.

The building of an igloo does not take much time nor require much labor and, after a winter's occupation, becomes so filthy that it is often easier to build a new one than to clean out the old. The tenting place is always selected in a location more or less distant from the winter quarters. The number of igloos or tents of a settlement seldom exceeds five, which usually means a population of about twenty-five persons, with one or two hunters for each home. This moving about from place to place is a sanitary precaution against establishing foci of disease, and is regarded and practised as such by the Eskimos, as they have found by long experience that living in the same igloo year after year is attended by danger to health.

The lack of morals among Eskimos is undoubtedly largely due to the promiscuous living together in such close quarters. They eat, live, sleep, and mate like animals. Their greatest fault is their indescribable filthiness. The accumulation of dirt on the oily skin and in the unwashed, uncleaned clothing engenders a stench which is everywhere the same; a stench *sui generis*; a stench to which a white man cannot become habituated for a long time. If the wind is in the right direction, a single person can

be scented many feet away, and when a crowd of them have gathered, as was the case on the "Erik," the stench becomes almost unbearable. It is very likely that this absolute neglect of ordinary cleanliness may be a prophylactic measure against disease in this climate, as

> "People who are always taking care of their health are like misers who are hoarding a treasure which they have never spirit enough to enjoy."—*Sterne.*

The smell which is so obnoxious to us, they do not perceive, or, perhaps, in the course of time it has become to them an agreeable perfume.

Lying is one of the prominent failings of the Eskimos, and is as deeply rooted among them as among other races having a yellow or a black skin. On the other hand, they possess many excellent, inborn qualities. Although brought up in an atmosphere of a purely socialistic life, where everything is in common except clothing, traveling equipments, weapons, implements, and a tent, the Eskimo is perfectly honest in his dealings with his fellow men and the few visitors with whom he is brought in contact. He does not steal. He respects the property of strangers, and, when he borrows anything, he is sure to return it at the expected time.

Although proud of his origin and associations, the Eskimo lacks the haughtiness of the Indian. He is humble and resigned and

> "Humility and resignation are our prime virtues."—*Dryden.*

He is good-natured and friendly, wearing a pleasing smile on his swarthy, copper-tinted face, and fond of talking, but not at all demonstrative. Although these people usually meet once a year and know each other well, being in reality a large family rather than a tribe, I have never seen anything like an affectionate meeting or parting. One day a woman came on board with an infant in her hood, and, as she scrambled over the gunwale, she stood face to face with another Eskimo woman about the same age and similarly encumbered. As they must have been acquaintances and friends, I watched them very closely to see how they would receive each other. Neither of them changed a single line of her face. They stood like statues and looked at each other stolidly for some time, when finally one of them addressed herself to the infant of the other, smiled, said a few kind words and rubbed the chin of the little one. This opened the flood-gate of conversation. They retired to a quiet place on the deck and spent the balance of the day in chatting over their experiences since they had last met. Commander Peary related to me even a more striking example of the undemonstrative nature of these children of the North. When the Eskimo girl who had spent a year with his family returned, the Commander was at Bowdoin Bay. Word was sent that the steamer, having the girl on board, was near-by, but, on account of ice, had some difficulty in reaching Peary's headquarters. The father of the girl, with a number of Peary's men, hastened to meet the incoming steamer. When they boarded the vessel

the girl was asleep in the forecastle. She was awakened and informed that her father had arrived and was anxious to meet her. She went to sleep again and had to be awakened a second time. When she met her father there was not the slightest sign of emotion on either side, but after they had retired, the girl's tongue was unloosened and was kept busy relating all she had seen during her absence. The only word of greeting in the Eskimo language is *chimo* or, as Doctor Kane writes it, *timo*. It is their only word for welcome. They have no words which correspond with our "good morning," "good evening," or "good-by." *Kunyanaka* is their word for "I thank you," seldom made use of and which I never heard, although I thought I had given them ample opportunities to let me hear it.

One of the most beautiful traits of the character of the Eskimos is their unbounded hospitality. Their igloos and tents (*tupicks*) are always open to their countrymen and strangers; and, while there, they are treated like members of the family. This hospitality is genuine and not feigned or for personal gain, as is only too often the case in civilized communities and more especially so in our higher so-called aristocratic circles.

We are too anxious to cultivate only the good-will and friendship of the prosperous.

> "Whilst you are prosperous, you can number many friends; but when the storm comes, you are left alone."—*Ovid.*

Not so with the Eskimos. They practice what they have not been taught—beneficence, and

> "A beneficent person is like a fountain, watering the earth and spreading fertility; it is, therefore, more delightful and more honorable to give than receive."—*Epicurus.*

The Eskimos are very fond of their children. The children get their good share of the best things that are to be had and are furnished with playthings to amuse themselves. At an early age the children are taught what they are expected to do when they reach maturity. The boys are trained in hunting, kayaking, dog driving, and must learn how to build a kayak and an igloo. The girls are taught sewing, dressing of skins, and cooking, such as it is among the Eskimos. In other words they give all their children a practical education which enables them, at an early age, to obtain, by their own efforts, the necessities of life. They are kind to the aged and the infirm. Old age is respected and it is the oldest man in a settlement who is appealed to for advice and whose counsel is sought when differences of opinion or questions of right and wrong disturb the usual peaceful atmosphere of the camp.

These people, the only real Eskimos left in the world, have never had a ruler of any kind, nor any fixed laws. They have always ruled themselves, and

> "The voice of the people is the voice of God."

They live in a part of the world where equality and liberty reign supreme and

> "What is so much beloved by the people as liberty, which you see not only to be sought after by men, but also by beasts, and to be preferred to all things."—*Cicero.*

The slight touch with the whites, which the Smith Sound Eskimos have experienced, has not improved their condition. They have learned from the whites more of their vices than their virtues. A few years ago the taste of tobacco was not known to them; now they crave for the weed. I have seen children in their mother's hood smoke the pipe as it was passed from one member of the family to the other. Sailors have brought them diseases which, in the course of time, will exterminate this small remnant of a noble race. I had no difficulty in finding evidences of transmission from parents to offspring of loathsome diseases for which the whites are responsible; a fact which confirms only too plainly the prophecy in the scriptures:

> "Visiting the iniquity of the fathers upon the children, and upon the children's children, unto the third and to the fourth generation."—*Exodus XXXIV, 7.*

What a pity that these innocent, childlike people should be made to suffer in consequence of the lust of civilized men who were benefited by their aid and hospitality! But such is the fate of all primitive races when brought under the dominating influence of the whites, and their offspring are made to experience, sooner or later, that

> "Posterity pay for the sin of their fathers."—*Quintus Curtius Rufus.*

A few years ago, when one of these Eskimos was given a drink of liquor, he would spit it out as something obnoxious to his palate. Today, after a longer experience with foreigners, he has developed, like

the Indian, a strong desire for rum. Should opportunity offer, drunkenness will soon creep in as another curse brought to them by the whites. The Eskimo, when he once has acquired a taste for liquor, will lose control over his reason and will go beyond the limits of temperance in obedience to his cravings, as

> "Temperance is the moderating of one's desires in obedience to reason."—*Cicero.*

and

> "Things forbidden alone are loved immoderately, when they may be enjoyed, they do not excite the desire."—*Quintilianus.*

The native dress is the only one adapted for the climate, but the desire of the savage to imitate the whites in dress is becoming manifest even here. Caps and undershirts are the articles of civilized dress most eagerly sought for and which have been acquired in barter for ivory and fur. That the white man is not always honest in such dealings, our Indians know, only too well, from sad experience. These simple, confiding, ignorant people have no idea of the value of what they have to exchange, and much less of what they receive in exchange; hence, the bargain will always be in favor of the one who knows. A sailor said, boastingly, to me that for a broken, useless oar he received forty pounds of ivory, which has a ready sale at a dollar per pound. The shrewd traders do not carry into practice the rule that

> "Everything should be disclosed, that the buyer may be ignorant of nothing which the seller knows."—*Cicero.*

The firearms which have been given to the Eskimos for service, or in exchange, have done these people, on the whole, more harm than good. They have made the killing of game easier and the young men are losing the art of primitive hunting, and the old hunters, inclined to laziness as they are, prefer to secure the game in the easiest possible manner and in the shortest space of time. The supply of ammunition is uncertain, and when it gives out, as is only too often the case, the former kind of hunting becomes more onerous than in former years. Powder as an article of exchange is in high estimation, higher than anything else, and it is with this article of barter that the best kind of bargains can be made. Then, too, the natives have not, as yet, learned to handle firearms with the necessary care, and accidents from their careless use are by no means rare. These simple, unsuspecting people have not yet learned to mistrust the foreigners, and, when they do, it will be too late to remedy the evils of the past.

They are not demonstrative or sentimental, even under the most trying ordeals. Smiling and laughing is their nature; weeping is of rare occurrence, even when the shadows of death visit their humble home. Sufferings are soon forgotten and mourning for the dead is of short duration. The widow or widower mates again as soon as an opportunity offers, and sorrows are laid aside and give place to the routine duties of a life free from care.

The Smith Sound Eskimos appear to be deeply conscious of the fact that



A CIVILIZED BAFFIN LAND ESKIMO

> "To be free minded and cheerfully disposed, at hours of meat, sleep, and exercise, is one of the best precepts of long lasting."—*Bacon.*

Indolence and shiftlessness are conspicuous characteristics of the Eskimos. They have no ambition either for wealth or fame. They furnish a striking example of the truth that

> "The desire for leisure is much more natural than of business and care."—*Temple.*

Avarice and luxury, the two great curses of civilization, are unknown vices to these children of nature, and Cicero's advice does not apply to them:

> "If you wish to destroy avarice, you must destroy luxury, which is its mother."

The Eskimo only takes exercise when necessity compels him, and never as a health measure or as a source of pleasure. He has no faith in the teachings of Galen, who regards active exercise as essential to physical and mental well being.

> "Employment, which Galen calls 'Nature's Physician,' is so essential to human happiness that indolence is justly considered the mother of misery."—*Barton.*

In spite of all the hardships and difficulties the Eskimo has to encounter, he loves the land he lives in. He has no history of which he can be proud, no flag to incite patriotism, no heroes to emulate or admire, and yet it is only in this region of ice and snow, where darkness and light are most equally divided, that he is happy and content. Transplanted to another clime he sickens and dies. Far away

from his native land, he is homesick, discouraged, and melancholy. He has

> "Affection for the soil itself, which, in length of time, is acquired from habit."—*Livius.*

He enjoys and loves life; he fears death.

> "The love of life, the last that lingers in the human heart."—*Statius.*

The study of these people of the extreme North, a distinct race with an obscure origin, their habits, customs, mental and physical characteristics, is a subject replete with interest bordering on fascination, and will teach us that

> "The characters of men placed in lower stations of life are more useful, as being imitable by greater numbers."—*Atterbury.*

And

> "Health and sickness, enjoyment and suffering, riches and poverty, knowledge and ignorance, power and subjection, liberty and bondage, civilization and barbarity have all their offices and duties; all serve for the formation of character."—*Paley.*

The span of life of the Eskimo is probably a little shorter than that of civilized people, although he is exempt from nearly all the diseases caused by intemperance and luxurious living. The Psalmist's limit of age is not often attained. Men and women between sixty and seventy are not many among the present population. Most reluctantly the Eskimo,

in his icy home, is blind to the uncertainty of the future, and it would be difficult to convince him that

> "Death is the liberator of him whom freedom cannot release, the physician of him whom medicine cannot cure, and the comforter of him whom time cannot console."—*Cotton.*

And

> "Nature has given to man nothing of more value than shortness of life."—*Plurius Major.*

These people were happy and content before they tasted of some of the poisonous fruits of civilization. They are blind to some of the highest virtues of life. Centuries of isolation from the outside world have developed in them an animal nature which it will be difficult, if not impossible, to control, much less to extinguish by any known influence the foreigners can bring to bear upon them; while, on the other hand, they are like all primitive races, only too receptive for new vices. Civilization will bring to them new needs and desires which they will attempt to gratify and which will deviate them from the well-trodden path of living according to nature's laws. When too late, they will learn to their sorrow:

> "If thou live according to nature, thou wilt never be poor; if according to the opinions of the world, thou wilt never be rich."—*Seneca.*

THE ESKIMO'S PRAYER TO DEATH (SINIPO)

Our heaven is near the Arctic Pole
Here, where ice and snow forever dwell
And lofty mountains inspire our soul
As we glance o'er hill, cliff, crag, and dell.
O Sinipo!
Our most dreaded foe,
Spare the Eskimo.

Our house of ice is our happy home
Where Kuna sews and our children play,
Over land and sea we love to roam
We all humbly pray do death delay.
O Sinipo!
Our most dreaded foe,
Spare the Eskimo.

O Sinipo! Let us here below
Where bear, seal and walrus yield us food,
Our paradise is here, you well know'
Where we wish to dwell in happy mood.
O Sinipo!
Our most dreaded foe,
Spare the Eskimo.

We love the land of the midnight sun,
The icy mountains, the frozen sea;
The winter's long night we do not shun;
Let us remain here, we pray of thee.
O Sinipo!
Our most dreaded foe,
Spare the Eskimo.

TEN DAYS AT ETAH

Etah is in the very heart of the arctic region. It is the most northern point inhabited by human beings in the world. It is a place familiar to all arctic explorers who have searched for the pole by the way of Smith Sound, as it is the last native settlement on the Greenland coast on this highway to the pole. The name Etah is intimately associated with some of the most stirring and disastrous events in the history of arctic exploration. This region has been known since 1616, when Bylot and Baffin sailed past the coast for the first time. In 1818 Sir John Ross found the Smith Sound coast inhabited, and became well acquainted with the natives, from whom he received much valuable information and assistance. It was Sir John who called the natives in this part of Greenland "Arctic Highlanders."

The arctic scenery about Etah is magnificent. The day after our arrival, I ascended Cape Ohlsen, about 2,000 feet above the level of the sea, from where the great inland ice-cap loomed up high above the coast range of mountains on one side, and on the other the icy waters of Smith Sound carry southward fields of pack-ice and countless giant icebergs. Beyond this is the uninviting, chilly, barren, snow and ice-covered coast of Ellesmere Land with its

two most conspicuous landmarks, Cape Isabella and Cape Sabine. For the first time, I was given here an opportunity to see the effects of ice on the clouds, on a large scale. When the sun was hidden behind the clouds, the clouds to the south, over the water, free from ice, or nearly so, were dark; to the north and along the coast of Ellesmere Land, where an immense field of ice was being carried south by the Arctic Current, the overhanging clouds were illuminated by the reflection from the ice. The same effect on the clouds is produced by the inland ice. To the arctic navigators, this effect of large bodies of ice on the appearance of the clouds is a very important sign in determining, at a distance, the difference between open water and water covered with ice.

I found here, at the summit of the mountains, in many places drifts of last winter's snow, and in one of them, fresh tracks of a polar bear and a cub, which I followed as far as the snow extended and then lost them on the bare, stony plateau. The number and size of the boulders which are scattered over the mountain mesas are something remarkable. Where they came from and how they were brought here by glacier action are things we can only conjecture. Near the summit of the mountain, in a shallow, I found a moss tundra, and, in all places where a little soil had accumulated, tufts of grass and several kinds of flowers. Numerous stone fox-traps, in a neglected condition, were found in different places, indicating the favorite haunts of this valuable fur-bearing animal.



VIEW IN FOULKE FIORD

Taken from bridge of ship at Etah, looking southward

FRONT GARDEN OF BROTHER JOHN'S GLACIER

"What more miraculous may be told—
Than ice, which is congeal'd with senseless cold,
Should kindle fire by wonderful device."
—*Spenser.*

Who would look for a flower garden in the immediate vicinity of a glacier in this latitude? The arctic region is full of surprises and, to me, not the least was a charming flower garden and a treeless park before the very face of Brother John's Glacier.

This glacier was so named by Doctor Kane in memory of his brother, John, who searched for Dr. Kane and found him at Etah. This glacier is a leader of the near-by inland ice-cap, in a deep gorge, at the head of Foulke Fiord. A large stream of clear, crystal water issues from underneath the face of the glacier and speeds over a stony bed to reach a beautiful little mountain lake, to find temporary repose. It then resumes its journey over a gradual decline, about a mile in length, and finally empties, after dividing into numerous small branches covering a small delta, into the bay.

There are a number of ancient igloos near the mouth of this stream and a low, grassy plateau, where the natives for a long time have, evidently, had their winter home. The flower garden I am speaking of does not consist of isolated flowers, like the gentian, edelweiss, and Alpine rose, found near the edge of glaciers and eternal snow of the Swiss Alps, but a great variety of flowers, and in numbers surpassing the most exaggerated ideas of the floral

wealth of the very heart of the arctic region. I found here, not only swards of the richest green and a variety of exquisite little flowers, but also a plant living on the cold bosom of the glacier itself. With such evidences of the wonderful resources of nature before me, it did seem to me that ice does "kindle fire by wonderful device."

The reflection of the heat rays of the sun by ice is a remarkable feature, and, as such, is familiar to all Alpinists. In Foulke Fiord, the almost perpendicular mountain walls on each side, their rocks and cliffs veneered with a coating of the color of old gold, the work of a chromogenic lichen, also reflect the heat rays. Both of these sources of heat and the sheltered position of the valley, under the influence of the genial midnight sun, transform the upper part of Foulke Fiord, during the midsummer, into a little paradise teeming with animal and vegetable life. I saw here, basking in the sunshine, mosquitoes, flies, butterflies, and even a bumblebee of no small proportions. The twittering song of the snow-bunting lent cheer to the pure calm air. The arctic hare was much in evidence, and demonstrated to us his speed in ascending the steepest inclines without much effort on his part. The air was alive with the little auk, and the lordly burgomaster dwelling on the highest cliffs came down in large numbers to the the little mountain lake for sport and food. Between the glacier and the shore of the bay is unfolded a panorama of indescribable beauty. It is one of nature's most beautiful parks, without trees and shrubs. To me it is doubtful if the pres-

ence of trees and shrubs could enhance the exquisite beauty of this, one of the most beautiful spots on earth. The only shrub that I could find was the dwarfed willow, from two to six inches in length, wearing its catkins in full blossom; the shrub, not erect, but modestly reclining on or under moss in a begging attitude, pleading for protection against wind, ice, and snow. There are here no gorgeous fragrant flowers; no birds of plumage or of song. But nature has given this favored spot in the heart of the arctics charms which defy description. The gem-like silver lake, the rippling mountain stream above and below it, the enormous boulders scattered over the surface of the valley, the gilded mountain walls, the great inland ice-cap, with its leader, Brother John's Glacier, the beautiful display of flowers, and the myriads of birds make up a scenery difficult, if not impossible, to duplicate anywhere else in the world. The time here is too short, even under the bewitching rays of the midnight sun, for nature to produce anything bearing the faintest resemblance to tropic scenery. What is on exhibition here is intended, exclusively, to please the eye. The senses of smell, taste, and hearing are almost entirely ignored. The eye is captivated by the harmony and simplicity of the display. On surveying the magnificence of the scenery, one awakens to the truth of:

> "In nature, all is managed for the best, with perfect frugality and just reserve, profuse to none, but bountiful to all; never employing on one thing more than enough, but with

> exact economy, retrenching the superfluous and adding force to what is principal in everything."—*Shaftesbury.*

Nowhere could this quotation be applied with more force than in studying the environments of Brother John's Glacier. Stand, as I did, on the shore of the bay, face the glacier, look to right and to the left, glance over the green carpet of soft, velvety grass which covers a large part of the floor of the valley, look upward, and behold the blue dome of the sky illuminated by the friendly, smiling midnight sun and you will be in a fit mental mood to realize that

> "Nature, the handmaid of God Almighty, doth nothing but with good advice if we make researches into the true reason of things."
> —*James Howell.*

In the face of nature in a stern mood, so near the great ice-shield that covers the greater part of Greenland, so near the car of the King of the North Pole, surrounded by a short-lived but vigorous vegetation, and in the presence of so much animal life, and valley and mountainsides decorated with a great variety of pretty flowers, grass, moss, and lichens in gay colors, we are made to feel our insignificance, and are only too willing to acknowledge

> "To recount almighty works,
> What words of tongue or seraph can suffice,
> Or heart of man sufficient to comprehend."
> —*Milton.*

The inclosing mountains, rising almost perpendicularly from the valley, with their rugged faces hid behind a drapery of rich orange-yellow, alive

with the little auk, and upon their highest shelves the homes of the great arctic gull, the little river of clear, crystal water, meandering over its rocky, pebbly bed, draining the bewitching little emerald lake near the face of the glacier, the great ice-cap overtowering all and sending down in to the rock-bound valley one of the hundreds of its icy arms, the majestic, snow-white burgomaster, gliding gracefully and noiselessly over the rippling surface of the miniature lake and darkened with the restless little auk flying from cliff to cliff out on the open ocean and back, can all be seen without changing the position. But let us look more closely at what nature has in store for the eye already dazzled by the boundless beauties of the panoramic views. Walking in the direction of the glacier after landing at the head of the bay, I have to wade through meadows where the grass is high enough for the scythe. The tiny stellaria is everywhere rivalling in whiteness the patches of last year's snow clinging to the shady places on the mountain sides imparting to the whole scenery an aspect of virgin purity. Where the soil is more scanty the beautiful yellow poppy (*Papaver nudicaulis*) thrives and fills the spaces between boulders with a carpet of gold. In doing this it is assisted by the shiny, deep yellow petals of the ranunculus and dandelion, the latter rising proudly above a whirl of crenated, succulent basal leaves. Here and there the predominating white and yellow alternates with flowers of a ruby red, in small bunches and large beds, made up of the little corollas, rising an inch or two above the ground. The homely,

succulent saxifrage (*Saxifraga nivalis*) competed with the grass for space in moist places. Then there was to be found, in the same places, the familiar buttercup (*Caltha palustris*), the pedicularis, and three varieties of water cress (*Draba*).

Extending to the very edge of the glacier these flowers and a number of others were also found, with the greatest varieties of grasses, mosses, and lichens. Even small mushrooms, with their somber, plicated, umbrella-like roofs, nature had not forgotten. It requires no stretch of the imagination to see that I was here able to make a valuable addition to my North Star Bay herbarium.

If we remember that this rich floral display had to be made in less than two months, and that new ice has already formed on the mountains leaving little time for the ripening of the seeds, we must marvel at the boundless resources of nature in pleasing the eye of the masterpiece of creation—man.

In approaching the glacier, I saw, issuing from beneath it, numerous rivulets of the clearest, purest water, and I listened to their gentle murmurings as they sped over their uneven bed of pebbles and boulders to unite into a stream of considerable size, which fed the near-by, placid little lake. Doctor Kane makes the statement that this lake remains open during the entire winter. The face and surface of the glacier were deeply furrowed from the effects of the summer sun, and here and there miniature waterfalls and cascades drained the product of the melting process into the network of rivulets below.

All this was interesting and instructive, but it

yet remains for me to describe here one of nature's great secrets—red snow. Before ascending the glacier, I noticed, on the surface near its face, a large patch which looked as though the snow covering it had been stained with blood. I knew I had succeeded in finding an opportunity to study this strange phenomenon so often alluded to by arctic explorers. It was an inducement for me to make the necessary effort to climb the face of the glacier and reach this spot. When I undertook this arduous task, it was so warm that I was obliged to remove my hunting coat and perspired freely in shirt sleeves. The ascent of the face of the glacier was exceedingly difficult, and when I reached the surface I found that the heat of the sun had softened the snow and converted it into a mass resembling crushed sea-salt. I sank at every step knee deep into the loose, crystallized snow, crossed deep furrows filled with water, but the red snow must be reached. It was hard work, but I secured a sufficient quantity of the stained snow for my purpose. Can plants grow on snow? They do here. This red snow is snow stained blood-red by a minute plant, an alga, (*Spaerella nivalis*). It was the first time I saw red snow, although I looked for it all along the coast. Commander Peary saw it on this trip near Cape York.

It seems that red snow was seen oftener by the early arctic explorers than it is now. Doctor Kane saw much of it, and, from his observations, became convinced that it was only found in places where, on the surface of the snow, foreign matter, such as fronds of lichen or filaments of moss, have

accumulated, serving as a nutrient medium for the protococcus. He says further: "I observed that the color of the protococcus was most pronounced when they were in great abundance." The algæ produce a red staining material which penetrates the snow to the depth of several inches. The intensity of the stain diminishes from the surface downward. In the spot where I collected the red snow, the coloration extended more than four inches below the surface. No snow was found in the bandana handkerchief when I reached the steamer, but the residue on the surface of the cloth, subjected to microscopic examination, revealed the protococcus.

Plant life on snow! A flower garden in the center of the arctic region, in the very face of a glacier, and so near the cold breath of Greenland's interior ocean of ice!

> "Our senses, however armed or assisted, are too gross to discern the curiosity of the workmanship of nature."—*Ray.*

THE HEART OF THE ARCTICS

"They picture it a gloomy place,
With icy mountains rising high,
With angry clouds that sail across
A far-off, somber sea of sky;
Where nought of beauty ever lives
Where peaceful thought could ne'er abide,
But only sentiments of awe,
To fear and trembling close allied!

"But walk with me beside the lake,
A gem of silver 'mid the green,
While rippling streamlets, crystal clear,
Tell cheery tales of all they'd seen:

Of mountainsides, soft tinted with
The sunshine's gold; of whitest snow
That blushed bright red, when seaweeds touched
And praised its face of pearly glow.

"Stand in the valley, walled by cliffs,
That rise in straightest lines on high;
They're draped in veils of richest hue,
While auk and sea-gull hover nigh.
Come through the meadows thick with grass,
Where tiny star-like flowers smile back
In beds of snow, that hide away
From out the sunshine's golden track!

"The lovely dome of azure blue,
Whence smiles the wondrous Midnight Sun,
Looks not upon a flowery soil,
With tropic beauties overrun.
'Tis close to where stern Frost is king,
But, O, it is a glorious land!
And speaks in loudest tones of God,
And 'works of His Almighty Hand!'

"I've traveled where the scented breeze
In sweetest music sang of rest;
I've gazed on many a favored spot,
Where Nature lies in Beauty's nest!
But Land of glorious Midnight Sun,
To thee, my song of praise I sing!
Thy wonders make men bow the knee,
And hail their God as sovereign King!"

—*Mary E. Griffin.*

First Sunday in Foulke Fiord

Sunday was observed by the Newfoundland sailors as strictly here as in any of the home harbors. The only two men who did the necessary work were the cook and the steward. The Eskimos who had no religious scruples were put to work in unloading the

more than hundred dogs we had picked up at the different settlements along the coast. Boat load after boat load of these miserable brutes, whose appearance and behavior had not improved during the voyage, left for the shore, and toward evening all were landed, to the great relief of all on board. The "Roosevelt" had brought about the same number, and, for some distance, the rocky shore was covered with these beasts, some of them tied securely to large stones. The snapping, barking, and dismal howling by this numerous family of dogs were kept up without interruption night and day. The natives then began to unload the carcasses of the eighteen walruses which, by the use of row boats, were brought on board the "Roosevelt." Monday morning the deck of the "Erik" was clear of the most obnoxious part of its cargo and a general cleaning up removed the unpleasant conditions which had taxed our patience and forbearance so severely for a number of days.

Sunday afternoon, twelve Eskimo women, half of them with infants in their hoods, went ashore all alone in one of the large boats and in a few hours returned with several bags filled with moss and a large basket full of young auks. There was great excitement when the boat, managed by the women, came aside of the steamer. The sea had become rough since their departure, so that it was difficult to steady the boat, and in their attempt to come up to the ladder several waves dashed over them. The women who managed the oars remained cool during the ordeal, but felt much relieved when their hus-



LANDING DOGS AT ETAH

bands came to their relief, when one after the other scrambled up the unsteady ladder and landed on the deck. In the evening four of the women came into our dining room and gave us an exhibition of the native dance and song. The former consisted of swaying movements of the body to the tune of an empty cigar box, beaten with a knife sharpener; the latter was the monotonous unmusical chant of the country. I distributed peanuts. They commenced to eat them in the shell. They evidently never had seen a peanut before, and when they were instructed in the proper way of eating them, they appeared to enjoy the treat.

The real Etah weather set in soon after lowering the anchor. The sky became overcast, shutting out the midnight sun, and a dense fog and drizzling rain obscured the surrounding beautiful scenery. The temperature, which, in the morning, was 46° F., fell to 40° F. in the evening. Monday, August 14th. Fog has disappeared; occasional sunshine.

Hunting at Etah

During our ten days' sojourn at Etah, I spent most of my time hunting and collecting botanical specimens. When we entered Foulke Fiord we met three walruses swimming in the direction of the open sea, and these were the last seen on the trip. Only one seal was seen here during the entire time. He was wounded, but made good his escape. The Eskimos stated that the reindeer had disappeared from that part of the country for the season, so we were obliged to look for small game. During all

my wanderings in the neighborhood of Etah, I did not see a sign of ptarmigan.

The Arctic Hare

The arctic hare (*Lepus timidus*) is as large as the jack rabbit, and is quite plentiful about Etah. I killed seven in half a day on the summit of the mountain back of Cape Ohlsen. This animal has found its way from Europe to Greenland, and in the course of time has become completely bleached with the exception of the tips of the ears, which are black. It is found as far as the most northern point of Greenland, where one was killed by Peary's companion at a time when starvation stared them in the face. It was agreed between the two that only a small part of the animal should be eaten and the balance reserved for the next day; but their hunger was so intense that the whole carcass was eaten before the meal was finished. Then both lay down and slept for hours, to awake refreshed and ready for the musk-ox hunt which proved successful and supplied them with an abundance of food. There have been many other occasions where this little animal came to the relief of parties in great distress. The arctic hare, inhabiting as it does, the coldest climate in the world, has preserved the length of its ears, while nearly all of the mammalian animals of the same region have lost the lobe of the ear. In the walrus and narwhal, the lobe of the ear is entirely absent; in the latter animal, the external meatus has been reduced to the size of a pin-hole. The ears of the fox and polar bear are

very short. The arctic hare is a very timid animal. Its only defenses are its speed in summer and its white color in winter which matches the spotless snow, when it is difficult for its enemies to detect it. The natives waste no powder in securing this animal, as it is caught in stone-traps like the fox. The fur is used in making sox.

The Little Auk

This part of the coast is the favorite haunt of the little, swift, hard flying auk, the real arctic bird. It is the bird that brought the tidings of spring to Mr. Nansen when he was in winter quarters in latitude 83° north. The little auk (*Alle nigricans*) is a species of sea-fowl belonging to the family *alcidæ*. It is a little smaller than the teal-duck, a thick set, heavily built bird, with short wings and tail; black, with white breast and three-toed, webbed feet. It is only found in the colder parts of the northern hemisphere, and many breed within the Arctic Circle. The bill is black, round and short, slightly curved downward, the upper mandible projecting beyond the lower. The little auks fly as swiftly as the teal-duck, but with greater effort, as the wings are short and narrow. They are also expert swimmers and divers. If they see the flash of the gun they are in safety, as they dive before the shots reach their mark. The great auk (*Alca impennis*), a wingless bird as large as a goose, formerly very numerous in the arctic regions and as far south as the coast of Newfoundland, has been extinct for the last fifty years. It was eagerly sought after by the Eskimos and

fishermen for food and because its skin was valuable material for clothing. It was easily secured, as it could not fly, and soon became extinct. We found, on entering Foulke Fiord, the air filled with enormous flocks of the little auk, flying up near the clouds and others flying only a few feet above the surface of the water.

Foulke Fiord is one of the favorite breeding places of the little auk. There is no place in the world where so many birds can be seen at any time, night or day. Although the midnight sun makes no distinction between day and night, I noticed that the greatest flights were early in the morning, when the birds go feeding on the open sea, and in the evening between six and ten o'clock, when they return to their roosts. They feed on shrimps, clios, and entomostraca.

It is now near the middle of August, the time when snow may be expected, and it seemed to me that the fabulous numbers of this bird indicated that they were congregating here preparatory to their migration southward, because,

> "Fowls by winter forced forsake the floods,
> And wing their hasty flight to happier lands."
> —*Dryden.*

The Wonderful Auk Cliffs at Etah

The provision nature has made for the sustenance and clothing of man in the cold, stern, unfriendly climate of the far north is simply marvelous. In the tropics, fruit and fish abound, the food appropriate for that climate. In this climate, sea-fowl and fat



AUK ROOKERIES IN FOULKE FIORD

and fur-yielding mammalians are the animals which nature has intended for food and clothing of the scanty population. The Eskimo has no need of, and no desirefor, vegetables. Watercress and dandelions, relished by us either eaten raw, boiled, or in the form of a salad, and which grow in abundance in the Foulke Fiord and other places on the coast, the natives have no use for. I tried to make them familiar with these excellent articles of a mixed diet, but they had no more use for them than we would have for their overripe blubber and raw meat. By long usage, their gastro-intestinal canal and secretory glands in connection with it have become averse to vegetable food and partial to the kind of food best adapted for this rigorous climate—raw fat and meat. They have become, exclusively, meat eaters; and, although I have no positive information on the anatomy of their intestinal canal, I surmise it is very short and resembles more closely that of their dogs than that of people who live on a vegetable or mixed diet. The result of frequent inquiries of persons who have seen much of Eskimo life is that appendicitis never occurs in these people, and I believe this is the case with all races that live exclusively on an animal diet.

It is very interesting here to observe how different animals select certain places for their short summer life. The narwhal, seal, and walrus have their own feeding grounds; the eider-duck selects its own island; the guillemot and kittiwake are good friends and associate together; but the former claims the higher shelves of the cliff. The burgomaster-

gull preempts the highest, the most inaccessible tiers, and will not have anything to do with the neighbors living at a lower altitude. The little auk prefers to live alone and claims miles and miles along the northern part of the west coast of Greenland for its exclusive use as breeding places. Foulke Fiord is the most densely populated breeding place of this daring, hardy inhabitant of the polar region.

This typical bird of the far North spends no time in making a nest. It selects for its rookeries rocky cliffs and deposits its single egg between stones where the entrance is too narrow for the arctic fox to reach it. It hatches its single egg by its own body warmth on the cold, senseless rock. Before the little one can fly it is taken to the water below, and is instructed in the art of swimming and diving by its devoted mother. Many a featherless, helpless young auk did we surprise among the loose rocks of this famous rookery. No one, who has not been an eye witness, can form the faintest idea of the vast numbers of the little auk which can be seen at any time in the rookeries, on the water, and in the air in Foulke Fiord. Before we entered this fiord, Commander Peary informed me that I would see there a wealth of bird life that would astonish me, and which could not be seen anywhere else in the world. His prediction was more than realized. The rookeries are in places where the steep mountainsides are covered with loose stones. From the level of the water up to a height of about 1,000 feet, the auk lives during the breeding season. To climb up a steep cliff about 500 feet and take a place among the

loose rocks in the very center of a densely crowded breeding place is the only way in which to obtain some idea of the density of the population of this bird. The rocks are literally covered with birds, buried under black and white, the colors of the living, moving bird carpet. On most of the rocks, standing room is scarce. Frightened by the appearance of the burgomaster-gull swooping down from the dizzy heights of the cliff, their worst enemy, they rise with the speed of lightning and fill the air, like a swarm of bees, and not a bird can be seen in the immediate neighborhood of the seat of invasion. The danger over, by the disappearance of the cause of flight, the whirr of the hard-working wings of the legitimate inhabitants of the rookery is again heard, and in a few minutes the rocks are as thickly populated as before the invasion. These birds have no fear of man. They perch on stones almost within reach of the hand all around him. When frightened by the appearance of the burgomaster or the discharge of a gun, they rush off with the noise and speed of a tornado, only to come back in a few minutes to occupy the same places.

One day I watched the evening flight of this bird from the bridge of the steamer. From about eight to ten o'clock, a continuous stream poured into the fiord from the open sea, flying close to the surface of the water. It was an uninterrupted, quivering, silvery stream, while large flocks, not far apart, flew in the same direction near the summit and face of the mountains, and still others high up in the air. During the early morning hours, the

flight was in an opposite direction. These birds, found in such fabulous numbers here and for miles along the coast, furnish the natives with an important article of food and material for under clothing.

The auk is one of the first birds to bring the Eskimos the tidings of approaching spring and the forerunner of the prospective walrus hunt. The natives waste no ammunition in securing these birds. They are netted without difficulty, a task belonging exclusively to the women. Armed with a hand net, the women hide themselves behind a projecting rock in the line of the most active flight, and when the birds come within range, which, is only a question of time, they throw out the net and catch the game. A large basketful in a few hours is an ordinary catch. The skinning of these birds is done very expeditiously and skillfully by the women. A circular incision is made around the base of the bill, and though this small cut the body of the bird is enucleated with their deft fingers in a few minutes without doing any damage to the skin. Wings and legs are severed by biting them off at the desirable places. The flesh is generally eaten raw. I sampled stewed and broiled auk, but they did not taste any different to me than our hell-diver prepared in the same way. The skins are dried, and then chewed soft and pliable by the women, when they serve as a most excellent material for under-vests for both sexes. Very few other birds venture into Foulke Fiord. Among them are the burgomaster, black guillemot, eider-duck, and the raven. The raven is the only bird in the arctic region that does not mi-

grate. It remains loyal to the region during the entire year. It is a magnificent bird, daring and courageous. The last bird in Foulke Fiord that I killed was a raven, and it took both barrels of my shot gun to secure him as one of my trophies. One of the members of our party killed seventy auks with two shots, which will give to the reader an idea of the fabulous number of this bird in Foulke Fiord during the breeding season. The best I could do when looking for meat for the crew of the "Erik" was to kill twenty-three birds in one shot.

The rookeries in Foulke Fiord ought to be a source of considerable income to the Danish government by deposits of guano, but this deposit is washed away annually and is only found in parts of the world where the wild fowl congregate and their deposits remain and inspissate, accumulating rich phosphates and ammonia in the form of the most valuable fertilizer. In the auk cliffs of Foulke Fiord and elsewhere on the coast, the animal deposit is removed by the freshets every year, and emanates a foul odor which keeps at a distance even the arctic hare, a scrupulously clean animal.

The Climate of Etah and Eskimo Life Here

The time for our departure came long before the unloading was completed and about 350 tons of coal was our ballast when we left Etah at 5:45 P. M., Wednesday, August 23d. The weather for this latitude and this time of the year was exceptionally fine. The midnight sun shone most of the time in all his splendor; the atmosphere was clear, dry, and

bracing; temperature in the shade ranged between 35° F. and 53° F., and the highest the thermometer registered in the sun was 63° F. Several nights thin ice formed on small pools on the mesas of the high mountains. Several times sun and moon were visible in the sky at the same time, obscuring entirely the more feeble light of the largest stars, which, in the dark winter, are so numerous and conspicuous near the pole. Although we were detained here longer than was expected, there were many things of interest to occupy my attention. The midnight sun, always present, and his various relations to the sky, clouds, mountains, icebergs, ice-cap, glaciers, to the ocean, and on the near-by coast of Ellesmere Land furnished a study replete with new surprises and uninterrupted pleasures. The timid moon contributed her share to the pleasures of the study of the ever interesting sky. The climbing of mountains and hunting on sea and land afforded ample sport and recreation. The collection and classification of the interesting flora and the daily study of the natives, their manners, and habits of living made time pass rapidly and profitably.

Commander Peary in making the final selection of the native contingent of his expedition, left twenty Eskimos at Etah—four men, a number of boys from twelve to sixteen years of age, and the rest women and children. This remnant of the expedition lived in four tents, pitched under a cliff near the anchorage place of the "Erik" and "Roosevelt." From the time we arrived in North Star Bay, I have had an opportunity to see and observe

more than one hundred Eskimos from different parts of the west coast, more than one-half of the entire population of the genuine natives, and there has not been a day when I did not find some new feature or trait of these interesting people. I have watched the animal instincts and skill of the Eskimo hunter and marveled at the dexterity with which the women dress skins and convert them into clothing and boots. I never tired of seeing the toy-like, frail kayak glide over the smooth water paddled by men, women, and children with admirable skill. The home life of these untutored children of nature is as simple as it is interesting. Perhaps I cannot give a glimpse of this in a more tangible way than by relating a brief account of



A WEDDING ON BOARD THE "ERIK"

AN ESKIMO WEDDING ON BOARD THE "ERIK"

After the departure of the "Roosevelt," the natives left behind lived for several days in the forecastle of the "Erik." Among them was a little woman, not more than four feet six inches in height, who came on board the "Erik" at North Star Bay all alone. From whence she came we did not know, but, judging from the appearance of her boots and clothing, the scanty outfit she carried, and the ravenous appetite she displayed, she must have made a long journey over land. She had no relatives among the people we had already on board or those who joined us later, but was treated well by all of them, as is the custom among them when they travel from one settlement to another. It was rumored that she was a widow, and her flaccid breasts, not too carefully hidden, showed only too plainly that she had been a mother. She was free to admit that her age corresponded with the number of fingers on four hands, but her looks indicated that it would be perfectly safe to add the five fingers of another hand, if not more. She was not as cheerful and happy as the rest, and her face was such as to impress one that she had recently undergone some sorrowful experiences. She took a lively interest in everything that was going on and seemed to brighten up day after day. She was fond of work,

and for a few presents of little value she dressed the skins of my two walrus heads and many bird skins, the latter by chewing them. In scraping the walrus skins she never wasted a fragment of the gelatinous substance about the region of the nose, which she ate as fast as it was cut off. This, eaten raw, is considered a great delicacy. She exhibited the same liking for the fat and shreds of meat of the bird skins.

Another member of the group was a boy not more than sixteen years old, who was very proud of a white canvas cap for which some member of the crew had no further use. This cap gave the boy a singular appearance, as his long, flowing, black hair reached to the shoulders and most of the time covered much of his boyish face. I do not know whether these young people had met before, but the courtship, was, certainly, a very brief one. The small Eskimo population slept in the forecastle. On the second or third morning, the boy met me on deck, his face all sunshine, and with pride and intense satisfaction he pointed to the smiling widow and then to his breast, thereby indicating that she now belonged to him. I knew then what had happened, as actions often speak plainer than words. The two, by common consent, without consulting any one and without any kind of ceremony, had become one. We can hardly call this a wedding. It was in reality, as it always is among the Eskimos, a mating. These two young people had absolutely nothing except the clothes they were wearing, and these were by no means new. The Eskimos who

were living in tents on shore, when informed what had occurred, received the news with hearty laughs, as though what had happened meant rather a joke than a serious step in the lives of the newly mated couple. Quietly and unexpectedly as the affair was conducted, it seemed to me that the visitors to this lonely spot, following a common usage, ought not to let this unusual opportunity go by without showing these savages, by suggestion at least, what a wedding should be like. The young couple were placed side by side, the captain joined their hands, and pronounced the words "*Isiki*" (man) and "*Kuna*" (woman or wife). They both nodded and smiled, and said "*E*" (yes). Whether this post-nuptial formality will tie the matrimonial knot more firmly and more lasting is very doubtful. We did what we could to give them a start in life. The wedding presents comprised, among other things, a knife, a pair of scissors, needles and thread, comb, tobacco, a bar of soap (which will probably be eaten), pieces of iron and wood, and a liberal supply of crackers and cooked food.

The Eskimo word for "I thank you" is *kuyanaka*; but it is seldom heard, nor do they express their gratitude, as a rule, by any special kind of demonstration. But this couple visibly expressed their feeling of appreciation of what was being done for them to make the union, for the time being, at least, a happy one, as

> "Contentment is a pearl of great price, and whoever procures it, at the expense of ten thousand desires, makes a wise and happy purchase."—*Balguy.*



COMMANDER PEARY ON DECK OF THE "ROOSEVELT"

THE "ROOSEVELT"

The "Roosevelt" was built especially for Commander Peary at an expense of $100,000, defrayed by the Peary Arctic Club. In designing the plans for the construction of the ship, the suggestions made by Peary, the outcome of a long and varied experience in the arctic regions, were made use of. The vessel was built by Capt. Charles B. Dix, of Messrs. McKay & Dix, of New York City, Greenland shipmasters and owners of long standing. The builder's model and the rig of the ship, have been worked out personally by Captain Dix, and are due entirely to him. The machinery was built and installed by the Portland Company, of Portland, Maine. The keel was laid on October 15, 1904, in the shipyard of the firm, who built the vessel at Bucksport, Maine, and the ship was launched the 23rd of March, 1905. The installation of the machinery began two days later at Portland, and was practically completed in less than two months.

The official measurements of the ship are as follows: Length, 184 feet; breadth, 35½ feet; depth 16½ feet; gross registered tonnage, 614 tons; maximum load displacement, about 1,500 tons. The back bone of the ship—viz., keel, main keelson, stern, and stern-posts, as also her frames, plank sheer, the waterways, and garboard strake—are of white oak. Beams, sister keelsons, deck clamps,

'tween-deck waterways, bilge strakes, ceiling, and inner course of planking are yellow pine. Outer planking is white oak, and decks are Oregon pine. Both the ceiling and outer course of white-oak planking are edge-bolted from stem to stern and from plank sheer to garboard strake. The fastenings are galvanized iron bolts, going through both courses of planking and the frames, and riveting up over washers on the inside of the ceiling.

Special features of the ship are as follows: First, in model; a pronounced raking stern and wedge-shaped bow; very sharp dead rise of floor, affording a form of side which cannot be grasped by the ice; a full run, to keep the ice away from the propeller; a pronounced overhang at the stern to still further protect the propeller, and a raking stern-post.

Second, peculiarities of construction; the unusual fastenings, as noted above; the unusual and massive arrangement of the beams, and bracing of the sides to resist pressure; the introduction of screw tie-rods to bind the ship together; the development of the 'tween-deck beams and waterways on a water line, instead of on a sheer, like the upper-deck beams; the placing of the ceiling continuous from sister keelson to upper-deck clamps, and the placing of the 'tween-deck waterways, deck clamps, and the bilge strakes on top of the ceiling; the filling in of the bow almost solid where it meets the impact of the ice; the massive and unusual reinforcement of the rudder post to prevent twisting; the adoption of a lifting rudder, which may be raised out of danger from contact with the ice; the armoring of the stern and bows with



Capt. Bartlett of the "Roosevelt"

heavy plates of steel; the protection of the outer planking with a 2½ inch course of greenheart ice sheathing.

Peculiarities of rig are: Pole masts throughout; very short bow sprit, which can be run inboard when navigating in ice of considerable elevation; three-masted schooner rig with large balloon staysails. The "Roosevelt" carries fourteen sails, including storm stay-sails, and has a rail area somewhat less than that of a three-masted coasting schooner of the same size.

Peculiarities of the machinery installments are: A compound engine of massive construction; an unusually heavy shaft of forged steel 12 inches in diameter; a massive propeller, 10½ feet in diameter, but with blades of large area, which are detachable in case of injury; a triple boiler battery; arrangements for admitting live steam to the low-pressure cylinder, in order to largely increase the power for a limited time; an elliptical smokestack to reduce wind resistance.

The above description of the construction of this vessel, by the aid of which Commander Peary confidently expects to realize the ambition of his life, is taken from a descriptive pamphlet of the "Roosevelt" published by the Peary Arctic Club. A ship so well constructed, equipped, and manned, like the "Roosevelt," is almost sure to win the race to the arctic pole. It is a source of regret that the speed of the vessel was reduced by an accident to one of the boilers before the battle with ice commenced, but the seaworthiness of the craft remains. The inside

arrangements for comfort and health during the long arctic winter have received due attention and have been planned and executed to meet all requirements.

Dinner on the "Roosevelt"

Shortly before Commander Peary left Etah to reach a point as far north as possible at this season of the year, for the purpose of shortening the distance between his winter quarters and the final object of his search—the pole—he invited myself and my companion, Dr. Frederick Sohon, to dine with him on board of his vessel. This gave me an excellent opportunity to see and study some of the most important peculiarities of the construction of this vessel, which were pointed out and described in detail by our distinguished host. The commander and his officers live in a real house built on the rear part of the vessel, which contains a kitchen, a dining room, a bath room, and sleeping apartments. All of the rooms are well lighted and thoroughly ventilated. The commander's room is large, elegantly furnished, and contains a well-selected library. Mrs. Peary and the many friends of the persistent and enthusiastic explorer, left nothing undone to make his immediate surroundings, during the long and trying trip, as pleasant and comfortable as possible. A pianola, presented by one of his admiring friends, with a great variety of music, amounting to a cash value of $300.00, is one of the principal attractions of this room, and will contribute much to shorten and render more endurable the long winter night. The electric lighting of the interior of the

ship and the sweet music of the pianola will do much to counteract the depressing effects of the fierce climate and long arctic night. Like other explorers of this part of the world have done before, it is the commander's object to provide for his crew and the natives active exercise and amusement during the long winter, to keep up their physical and mental activities.

The dinner gave me a good idea of what a dinner during the holiday season in the arctics is like, as it was a genuine arctic affair. The principal course was a stuffed and baked walrus heart. It required a large plate to serve this dish, as the heart of a walrus is larger than the head of an adult. It was evidently not the first time that the excellent cook had prepared this novel dish, as it proved, at least for me, a great delicacy, and the charming host made me eat three liberal portions. A beef heart cannot compare with a walrus heart in flavor. It is the intention of the commander, when he returns from this expedition, to give the members of the Peary Arctic Club a real arctic dinner which will include this dish, ptarmigan, seal-flippers, musk-ox meat and bear-meat roasted, reindeer steak, raw walrus liver and slices of blubber, breast of the little auk, roast eider-duck, etc., to show them what the arctic regions can furnish for the table.

The secret of success of Peary in his explorations of the arctic regions has been his dependence on food the country can furnish, and it is due to this foresight that the members of his expeditions have never suffered from scurvy or any other serious disease.

The conversation during and after dinner was a great mental feast for me, as the host, an enthusiast in his undertaking and his deep knowledge of everything pertaining to the extreme North, spoke freely of his work in the past and his plans for the future. He is sanguine that this expedition, so well planned and thoroughly equipped, will realize the dream and expectations of his life. His crew consists of well-selected, hardy, reliable and fearless Newfoundlanders, all of whom have seen much service along the coasts of Labrador and Greenland—just the kind of men best adapted for arctic work. He has been equally cautious in the selection of the Eskimos who are to accompany him. Many of them, men and women, have taken part in one or more of his former expeditions. The trustworthiness and efficiency of these have been tested and found satisfactory.



THE "ROOSEVELT" LEAVING ETAH FOR THE FARTHEST NORTH

DEPARTURE OF THE "ROOSEVELT"

The "Roosevelt" left Etah, Thursday, August 17th, at three o'clock in the morning. The midnight sun was shining brightly, the sea was quiet, and everything propitious for a good start for the utmost northern limits of navigable waters. Commander Peary has been making preparations for this expedition for the last two years. Only one who has had personal experience in getting ready for such a voyage can understand and appreciate what this means. As the inmates of the ship will be entirely isolated from the outside world and placed on their own resources for at best one, if not two or even three years, it requires much care and forethought to stock such a ship to meet the requirements of so many people and for such a long time, and to make provision for all kinds of emergencies on land and on sea. The building of a special vessel for this purpose, the selection of an efficient, reliable crew, the purchase of supplies, the recruiting of Eskimos for service, the collection of a sufficient number of dogs, and attention to other innumerable minor details are matters which must tax severely the good judgment, forethought, and executive abilities of the one who is in command of the expedition. Commander Peary's long experience in the arctic regions, his executive abilities, which are of the highest order, his familiarity with the habits and customs of the Eskimos, and his knowledge of

their language are qualifications which fit him admirably for the arduous task before him. He left Etah confident of success. The final preparations here made his last days at Etah very onerous. He had to look backward and forward. His last messages to his family and friends had to be written, and all final arrangements for the future made. A few native families not desirable for the expedition were left here for the winter. He selected for his service only men upon whom he can rely, twenty-three in number, who, with their families, made the whole number of Eskimos on the "Roosevelt" about sixty. One of the last things Peary did was to call the roll at midnight. As the names of the natives were called, they stepped forward and formed a group on the rear end of the deck. Among those who remained on the "Roosevelt," I counted seven infants in the hoods of their mothers, one or two young widows, and several boys from fourteen to eighteen years of age.

The center of the deck was occupied by 213 Eskimo dogs, which were in anything but a peaceful disposition. The usual howling, barking, snapping, and fighting were worse than any time before, owing to the increased number of dogs and the narrowness of the space assigned to them. This midnight scene, with the two vessels lying side by side in waters at the very northern limit of human habitation, it would be difficult to describe and impossible to forget. The crew of the "Roosevelt" knew what to expect; the natives were as unconcerned as though they were merely going to the next hunting ground.



ONE OF THE FINEST ICEBERGS ENCOUNTERED BY THE PARTY

Most of the provisions were stored on deck in order to be readily accessible in case of an accident to the ship. The deck was crowded with dogs, Eskimos, and crew wedged in between boxes, barrels, sledges, kayaks, and coal in bags. The sky was cloudless, and the midnight sun smiled on the remarkable scene. The "Roosevelt" seemed to groan under the heavy cargo which weighed down her gunwales almost to the water's edge; and yet more is to go on. Shortly after midnight, she crawled up to the side of the "Erik" and several dozen puncheons of whale meat, brought from Newfoundland as food for the army of hungry dogs, were taken on deck.

Commander Peary came on board, issued his last orders, left his last messages for his family and friends, and we bade him good-by and wished him Godspeed and a safe return after accomplishing the desire of his life. At three o'clock in the morning, the whistles of both steamers shrieked the last farewell, the stone walls of the fiord echoed and re-echoed their shrill voices, the propeller was set in motion, and the "Roosevelt" glided out of the fiord under a flood of light from the midnight sun and was soon lost sight of behind Cape Ohlsen, where her course was directed toward Cape Sabine, her first destination.

The amount of pack-ice in Smith Sound was unusually small at this season of the year, and there is every reason to entitle us to the hope that the explorer will reach it in due time, and that he will meet with no insurmountable obstacles on his way further north to latitude 83° 45′ where he intends to remain

during the winter, and from where he expects to make his desperate dash for the pole over the ice by the use of dogs and sledges. If he succeeds in bringing the "Roosevelt" as far north as he has planned, he will be only 420 miles from the pole. As he is well supplied with dogs and sledges, there is every reason to believe that, if no unexpected obstructions are met with, he will triumph over the fierce elements and will be the first human being to see and describe what so many others have sought in vain—the north pole. From what I have seen of Commander Peary and his remarkable outfit, I feel almost confident that our flag will be unfurled to the icy breezes of the north pole in less than a year; and I am sure every citizen of the United States will take pride in the accomplishment of such a feat by an officer of our navy, who, for fourteen years of the best part of his life, has exposed himself to so many dangers, hardships, and privations to win the race for the pole.

A FRIENDLY CONTEST BETWEEN THE MIDNIGHT SUN AND THE MOON

Since the midnight sun has converted night into day, we have seen nothing of the lesser lights of heaven, the moon and stars, until one o'clock Sunday morning, August 20th. In the meantime, the moon had grown to half-size and, at the time mentioned, appeared as a very pale hemisphere, however, well outlined in the horizon above the sunlit plateau of one of the mountains. The sun, low down in the horizon, had lost some of his midnight brilliancy under the effect of the feeble light of the moon.

> "The sun to me is dark
> And silent as the moon,
> When she deserts the night
> Hid in her vacant, interlunar cave."
>
> —*Milton.*

Not a star could be seen. At midnight, the sun and moon were rivals in the sky. Fleecy clouds, from time to time, veiled the face now of the sun, then of the moon. This midnight picture was a strange, almost supernatural one. Profound silence reigned. The deck of the "Erik" was deserted. The Eskimos and crew, with the exception of the watchman, were sleeping. The high mountain plateau was bathed in golden sunlight, the rays of the Sun did not reach the more somber fiord. The smoothness of the water was only disturbed by gentle mur-

muring ripples, silvered by the dim rays of the rising moon. On the surface of the silvery sheet of water was seen a perfect image of the moon. The sun seemed willing to retire from the midnight contest, but could not, as he was infixed in his retiring position by the force of the immutable law which controls the movements of the heavenly bodies from the time they were first set in motion. The moon was rising, and seemed to know that the king of night and day would soon have to leave to her the reign during the approaching long winter night, when she would summon to her aid, in dimly lighting the darkness, myriads of the brightest stars. It was a friendly contest between the receding, enfeebled midnight sun and the ascending, growing moon which, in a short time, according to the very nature of things, can only end in a victory of the moon over the sun, the weaker over the stronger.

"Incapable of change, nature still
Recurs to her old habits."
—*Juvenalis.*



A TWIN ICEBERG

DECEPTION OF DISTANCES IN THE ARCTIC REGION

Any one who has visited the Rocky Mountains has been made aware of the effect of the purity and rarity of the air on vision. The eye penetrates the atmosphere much farther there than in the eastern and middle states, where the air is more dense and contaminated by the smoke from myriads of chimneys and thousands of manufacturing establishments and wandering locomotives and steamers. It is the arctic regions, however, that surprise the eye of visitors unaccustomed to the absolute purity of the air in that part of the world, where dust and smoke never have defiled it, when it comes to measure distances by eyesight.

Doctor Kane, in speaking of the icebergs, says: "In the estimate of both altitude and horizontal distance, the iceberg is a complete puzzle. I have often started for a berg seemingly within rifle shot, and, after rowing for an hour, found its apparent position unchanged."

I have been similarly deceived on many occasions. At North Star Bay, when we rounded the singular promontory we called Noah's Ark, I saw an almost continuous chain of icebergs hugging the east shore. They seemed to me within easy range of my Winchester, but it took three hours of hard rowing to reach them.

The atmosphere here is so clear and pure that one not accustomed to it invariably underestimates distances. Many a time, in walking toward a selected point, I was under the impression I could reach it in fifteen minutes, when it took me more than an hour. If you think a glacier or a cliff is a mile away, you will learn to your disappointment before you reach it that you have walked three or four miles, if not more. Ellesmere Land, twenty-three miles away from Etah, across Smith Sound, looks to the inexperienced observer to be not more than five or six miles away. This deception of distances is a great trial to the hunter who follows the chase for the first time in this arctic air. Birds which he considers within easy reach of his gun are in no danger. He returns, as I did, from his day's sport disgusted with his marksmanship until he has learned to accommodate his sight to an entirely new atmosphere. It is advisable for the hunter to do some target shooting before he goes for game to avoid the inevitable chagrin and useless waste of ammunition.

The Fallacies of the Compass in the Far North

The arctic regions have their beautiful realities and their disappointing deceptions. They are trying places for the navigators and hunters. The mariner, who relies on his compass in directing him in his course, must exercise great caution else this instrument of precision will lead him astray. In these regions the compass is a fidgety, nervous instrument. At Etah the westward deviation of the

needle in the direction of the magnetic pole is so strong that in order to go true north the navigator, if he relies on the instrument, must sail southeast. This fact will surprise the people who are laboring under the mistaken notion, as many do, that the magnetic pole is located at the north pole and that, consequently, the needle always points due north.

Although Captain Ross undoubtedly discovered the magnetic pole in British Columbia in 1831, we shall know more about it after the report of Captain Amundson is made public. This intrepid explorer spent nearly a year in the vicinity of the magnetic pole and his observations were made with great accuracy and promise to be of the greatest scientific value.

THE FLORA IN THE HEART OF THE ARCTICS

Most of the people think of Greenland as a barren land where ice and snow forbid any kind of vegetation. The visitor who sees Greenland for the first time during the midsummer is surprised to find, notwithstanding the shortness of the summer and the scantiness of the soil, a rich vegetation and a great variety of flowers. The midnight sun does wonders in the way of awakening and stimulating vegetation. Vegetable life is dormant under ice and snow for nearly eight months out of the year; but, with the appearance of the midnight sun, an activity begins unparalleled in any other climate, and in a few weeks seeds sprout, the plant develops with magic speed, flowers, and ripens its seed for the next year.

The country is treeless. Vegetation consists of lichens, mosses, grasses, herbs, and shrubs. Minute flowerless plants, of the class of algæ, are found growing even on ice and snow, where the detritus of other plants has accumulated in sufficient quantity to furnish the necessary nourishment. North Greenland is especially very rich in lichens, of which the crimson variety (*Lepraria*) is the most beautiful. The ordinary mosses serve the natives a useful purpose for packing the spaces between the stones of their igloos and as a material for lamp wicks. The

most useful of the mosses is the reindeer moss (*Cladonia rangiferina*), as it is the principal winter food for the reindeer. It is found along the whole coast of Greenland. It is of a silvery white color, even in summer. It contains the nutritious lichenin, a form of starch. In the fiords in the extreme southwest of Greenland, birches and alders attain the height of a man. Few of the shrubs are more than a foot high and their branches touch the ground. Dwarf alder and mountain ash grow as far north as 65°; the juniper, two degrees higher, and willow and birch, often hidden in moss, as far as 72° north. I find the willow is the only representative shrub from latitude 73° to 78° north, and only in a dwarfed condition, varying in height from one inch to not more than eight inches. If this shrub attains more than two inches in height it is always found reclining on the ground.

The flora of Greenland embraces about 400 flowering plants and several hundred varieties of lichens and mosses. The flora resembles more that of Europe than of the American continent. I can only speak of the flora of the arctic oasis, extending from North Star Bay to Etah along the west coast, a distance of about 235 miles, inhabited by the Smith Sound Eskimos. This stretch of the coast lies between 73° and 78° 40′ north latitude. I found and collected here the following plants:

Caltha palustris
Draba { *Corymbosa* / *Nivalis* / *Glacialis*
Stellaria longipes
Ranunculus { *Nivalis* / *Sabinii*
Rumex digynus
Silene acaulis
Cerastium alpinum



A FLOWER PATCH IN THE HEART OF THE ARCTICS

Potentilla { *Pulchella* / *Frigida*
Epilobium augustifolium
Taraxacum palustre
Pyrola chloranta
Pedicularis { *Arctica* / *Kanei*
Papaver nudicaule
Carex rigida
Alchemilla alpina
Diapensia laponica
Cassiope tetragona
Sedum rhodiola
Vaccinium uliginosum
Saxifraga { *Oppositifolia* / *Nivalis* / *Rivularis*
Andromeda tetragona
Salix { *Herbacea* / *Arctica*
Dryas octopetala
Cochlearia fenestrata
Gnaphalium sylvaticum

Of grasses I found:

Agrostis canina
Trisetum subspicatum
Poa { *Arctica* / *Alpina*

The variety is not great, but when we consider that these plants were found growing very near the northern limits of vegetation, this small number must astonish the uninitiated. While the variety is not great, their number was something extraordinary. In many sheltered places the ground was literally covered with flowers, making, with the soft, green grass, a variety of mosses, and the ever-present colored lichens, a beautiful carpet.

ARCTIC WOES

The heart of the arctics is an ideal place for a summer visit. It is, at best, a most desolate, dreary region during the long winter night when deserted by most animals, and when the ground is covered by several feet of snow and the fierce, icy winds rake the surface without mercy. After having enjoyed the beauties of the far north during the most congenial season of the year, thoughts of the sufferings of many arctic expeditions wintering in this neighborhood occurred to me. The heart of the arctics has been the battle-field of the explorers with ice, cold, arctic cyclones, hunger, and disease, and is the graveyard of many a brave sailor. It is here where men's patience, courage, and perseverance have been most sorely tried.

The "Polaris" was lost in Smith Sound not far from Etah. It was at Cape Sabine, in sight of Etah, where the Greely expedition endured the hardships of a long winter night and fought the pangs of hunger and endured the ravages of disease, and where many of the crew finally succumbed to starvation. These battle-fields are not stained with blood, but have been made memorable by the courage and endurance of men in search, not for wealth and power, but engaged in scientific pursuit in an unselfish attempt to reach the remotest part of the world to solve the mysteries of the north pole. The sad

fate of the "Polaris" expedition and the hardships of expedition of Greely's will furnish, among many others, the most striking illustrations of the subject of this chapter, familiar to most readers, but of sufficient importance to deserve a brief repetition here. For more minute details of the catastrophes the reader is referred to *Munsey's Magazine*, 1895.

The "Polaris," in command of Captain Hall, in 1872-73, was caught in the ice in Baffin Bay. Expecting that any moment the vessel might be crushed, the crew encamped beside it on the floes, in two parties. Suddenly, as occasionally happens, the ice broke away, and one party found itself drifting from the ship and their companions, who were powerless to give them any aid. In the strong current of the bay, the ice-raft, with its freight of human beings, floated away from the Greenland shore. Gradually, as it traveled to the south, the ice melted and the waves broke it up into smaller fields, necessitating its passengers, from time to time, selecting a new and smaller floe. The people on the ice numbered more than thirty, among them some Eskimos, including two women and several children. A child was born during the memorable voyage. This child is now the mother of several children and lives in one of the settlements of the Smith Sound Eskimos. Her father, called Hans, a familiar figure to a number of explorers and known for his ability as a guide and hunter and for his trustworthiness, has since died.

This extraordinary voyage began on the 15th of October and ended on the 29th of April following,

when the passengers were rescued near the coast of Labrador by a sealer. In a half-starved condition, the people were brought to St. Johns, Newfoundland. The ice-floe had carried them nearly 2,000 miles. The physical suffering and mental agony of these people can be better imagined than described. When they were taken on board the sealer, all that was left for them to eat was a bear skin, which was cut into strips and chewed for what nutritious material it contained. The crew of the Greely expedition fared even worse than this.

It had been planned that the object of this expedition should be to establish an observation station in Greenland, one of a chain to be maintained as near as possible to the pole by several governments. The expedition sailed in 1881, and the following summer supplies were to be sent, and in 1883, after two years' work, the party was to be brought back. The plans miscarried. The first relief expedition, under Beebe, failed to reach Greely's post. A second was equally unsuccessful. The third relief party, under Commander Schley, started at the earliest possible moment in 1884.

It was believed that Greely's provisions would have failed him, and that he would have attempted to escape southward. A careful watch was kept along the shores of Smith Strait, and in June, at an old cache, a record was found which contained the information that in October, eight months before, Greely made his headquarters at Cape Sabine. The rescuing party made haste and reached the post June 23rd. They met with a most appalling sight.

When winter overtook Greely's party, their provisions were nearly exhausted. The fight for life was a desperate one. In spite of the most discouraging outlook, discipline was maintained, observations were taken regularly, and the commander encouraged his men by word and deed. Gradually one after another died. At the end of winter, the survivors were too weak to move. They had not strength left to bury the dead—not even, in the last days, to remove the dead from the tent, which had partly collapsed, and none were strong enough to raise it. Seven were still alive, barely alive, when help came. Eighteen had perished. Another two days would have sealed the fate of all. The brave commander was one of the survivors, and, when found, said in a faint voice: "Here we are dying like men. Did what I came to do—beat the best record."

The terrible fate of the Sir John Franklin expedition, although it occurred more than half a century ago, remains fresh in the minds of the people. Not a member of the different crews survived to tell the story of the expedition, and it required the expenditure of many fortunes and years of perilous searching before the bleached skeletons of a number of members of the expedition were found, under circumstances that proved, only too plainly, that death had come to them from starvation. Although, according to the statement of Commander Peary, the total mortality of all expeditions to the arctic regions does not exceed two per cent., it would be difficult to estimate the amount of suffering endured

by those who were obliged to spend one or more winters in that land of desolation and darkness, utterly cut off from any communication, and thrown on their own resources.

In consequence of a long experience, recent expeditions have been fitted out in a way to prevent many discomforts and much suffering. But such undertakings cannot be carried out without much self-denial and an amount of courage that would do credit to a well-tempered veteran soldier.

APPROACH OF WINTER

Although the weather, during our ten days' sojourn in Foulke Fiord, was all that possibly could be desired, I observed, during the last few days, unmistakable indications of the approach of winter in the speedy fading of all flowers and in the yellow discoloration of the grass in the most sheltered localities. The little pools of water on the high mountain plateaus became covered with a thin sheet of ice during the night, and icicles formed on the edges of crags, over which the water flowed in miniature cataracts.

But an earlier notice of the coming of winter was given by the best and most reliable weather prophet, the little auk. For several days millions of these birds, in endless flocks, sailed over the fiord, high up in the air near the clouds, in a southerly direction. I mistrusted that the southward migration had commenced. I went to the rookeries, where a few days before, the cliffs were literally covered with auks, and found them almost entirely deserted. The young generation had learned to fly, and joined their parents on their flight to a warmer climate. This shrewd bird of the far North had timely knowledge of the approaching snow-storm and escaped it by seeking a warmer clime.

The common guillemot (*Cepphus grylle*), the blue gull (*Larus glaucus*), and the burgomaster (*Lestris parasitica, Buffonii*) remained in large numbers and the little snow-buntings (*Emberiza* and *Plectrophanes*) twittered about the bare rocks on the mountain plateaus as gaily as during midsummer, without a thought of escaping the first snowfall. This little bird is one of the last to leave the arctic regions, and one of the first to return. The most patriotic of all arctic birds, is, however, the raven. This bird, alone, scorns to change either color or climate. The Greenland raven is a magnificent specimen of bird life, and how it survives the long, dark, arctic winter is a mystery. I was fortunate enough to secure a fine specimen in Foulke Fiord just before our departure.

HOMEWARD BOUND

We left Etah, Wednesday, August 23d, at 5:45 P. M. The increase of the ice-clouds over the water-clouds to the north and west above Smith Sound, the formation of ice in elevated places, and the appearance of a snow-storm, admonished our captain of the necessity of leaving this high latitude to avoid the risk of being caught in pack-ice, in spite of the fact that about 200 tons of coal, intended for the Peary expedition, remained in the hold of the ship. This coal served as ballast for the ship on the return trip, and saved the time that would have been required in substituting stone ballast for it.

When the ship left her anchorage under full steam, the Eskimos were standing on the shore in a group in front of their tents, surrounded by their dogs, and remained motionless until we were out of sight. Only the bride of a day climbed up an adjacent cliff, stood for a short time like a statue, and then scampered down the steep rocky decline and ran in the direction of the settlement. What will become of these poor people during the long winter so near at hand? God only knows! Their clothing was scanty and well worn, their fur supply entirely inadequate, and the provisions almost exhausted. There remained only two or three first-class hunters. The remainder of the settlement was made up of old men, women, children, and several infants.

The walrus had left this part of the coast, and only very few seal remained. The supply of ammunition for the two or three old carbines was small, and it was too late for the netting of birds. Fortunately there are plenty of arctic hare in this vicinity, and the natives secure them in stone traps and reserve the ammunition for larger game. The reconstruction of the stone igloos had not commenced when we left, as the natives prefer to live in tents until the severe cold and snow force them into their winter quarters.

The first night out a severe snow-storm overtook us, which made it necessary to leave the Greenland coast and depend on the unreliable compass as a guide in directing the course of the vessel. During the evening, we had a fine near view of the dreary coast of Ellesmere Land, in full view of Cape Isabella, and in the distance we could make out distinctly, with the aid of glasses, Cape Sabine. Ellesmere Land is buried under ice and snow throughout the entire year, with the exception of some of the cliffs along the coast and the black, bare mountain peaks that project high above the level of the billowy ocean of ice, which the warmth of the midnight sun uncovers for a short time during the summer. Some of the mountains in the interior appear to be very high, at least from 4,000 to 5,000 feet above the level of the sea. The numerous bare, black peaks appeared like so many pyramids on a foundation of eternal ice. The evening sun peeped from time to time through the fleecy, golden clouds, and his soft, slanting rays smiled upon this stern, un-

inviting domain of ice, snow, and black rocks, producing a strange, almost weird, illumination pleasing to the eye from a distance, but forbidding on nearer approach. The very breath from this land of ice chilled the atmosphere and reminded us of the terrors of the climate of the farthest North. This coast, so freely exposed to the winds from the polar region, is much colder than the west coast of Greenland, the climate of which is moderated by the indirect Gulf Stream from the south. This is why most of the explorers make their winter quarters at or near Etah, and not at Cape Sabine on the opposite side of Smith's Sound.

The whole aspect of Ellesmere Land reminds one of

> "Fierce Boreas, with his offspring, issues forth
> T' invade the frosty wagon of the North."
>
> —*Dryden.*

and

> "Liest thou asleep beneath those hills of snow?
> Stretch out thy lazy limbs; awake, awake!
> And winter from thy furry mantle shake."
>
> —*Dryden.*

Toward morning, the snow-storm subsided, the atmosphere cleared up, and, on our way to Godhavn, we saw much of the coast of Greenland after Ellesmere Land was out of sight. The Greenland coast, south of Etah, is a range of table mountains, varying little in height, intersected by fiords and ravines, most of them beds of glaciers, large and small, leaders of the great interior ice-cap, the silvery surface of which is almost constantly in sight from the deck of the steamer when a few miles out.

The first night and day out from Etah, we encountered numerous icebergs, all of them showing the effects of the summer sun, the melting rays of which, combined with the erosive action of the waves, had sculptured them into most fantastic forms. These colossal masses of pure ice have a rectilinear groove at the water line, hollowed out by the action of the waves, their tunnel-like roofs often pendent with icicles. The thawing action of the sun had worn away the brilliant fractured surfaces, changing the whole mass into a color of frosted silver. Doctor Kane says: "An iceberg is one of God's own buildings, preaching its lesson of humility to the miniature structures of man." Any one who has seen the great army of icebergs sailing along the coast of Greenland will indorse this beautiful sentiment.

Many of these giants were in a state of far advanced disintegration, and the surface of the water was covered with their mangled remains. Many of the survivors showed cracks and fissures, several feet in width, ready at any moment to break up into a thousand fragments, an occurrence which we had an opportunity to witness a number of times, by a thundering noise and much splashing and foaming at the seat of disaster. With a thundering detonation, the fracture or parting of the main mass takes place, followed by sharp reports caused by the breaking up of these colossal fragments into smaller ones. A part of the iceberg remains and sways like a ship in a storm, while the detached masses fall in all directions, sending splashing, foam-crested waves high

up into the air from the places where they momentarily disappear under the water and where they rise to the surface again. In a few minutes, this local commotion in the water is followed by a calm, and the astonished observer finds the foam-covered surface strewn with fragments of all sizes and shapes and what remains of the iceberg, slowly on the way of finding its new balance, reminding one very much of the floating wreck of a ship.

Thursday morning, at eight o'clock, we passed Carey Islands. The weather was chilly, the sky overcast with swiftly moving gray clouds, and during the forenoon, and again in the evening, we had quite a severe snow-storm, with biting winds, in consequence of which the thermometer dropped to 35° F. As we entered Melville Bay in the evening, we left the icebergs behind us and saw no traces of pack-ice. In crossing the bay we were two days out of sight of land.

MENTAL INDIGESTION

"I 'gin to be aweary of the sun."—*Shakespeare.*

All pleasures in this world are of short duration. Not infrequently, anticipation affords more pleasure than the reality. The mind, like the stomach, has its likes and dislikes, its periods of activity and repose, its pleasures and ailments, its hunger and thirst, and sense of satiation. The stomach soon tires of the most delicate articles of food if indulged in day after day. Who is there who can enjoy, for any length of time, the delicious speckled trout or the savory quail on toast, if eaten daily? It requires a vigorous and patient stomach to enjoy such culinary treats for more than two or three days in succession. The active mind must be given a variety of mental food to guard against indigestion. The mental appetite is as capricious as that of the stomach, and, to keep it in a good, healthy condition, it must be provided with food it can digest and assimilate. A monotony, an exclusiveness in mental diet, is as repugnant to the mind as a sameness of food is to the stomach. Variety of food and congenial employment is what mind and body crave for, and on which they thrive.

When I was in Egypt and the Holy Land, the camel was to me the most interesting of all animals. It was something new to me. It is a homely beast, but when a caravan came in sight I could not keep

my eyes off of these patient carriers of burden, these ships of the desert. At first I saw the sunny side of this, to me, new animal. As days and weeks passed by, the camel lost its charms for me. By that time, I noticed more the anterior surface of its chafed, and often bleeding knees, the grunting, and labored getting up and lying down in slow response to the urging of the unfeeling driver. I have no desire to see camels again.

In the tropics, I was fascinated by the graceful, feathery palms, with their clusters of golden, oily, giant nuts. I was, also, deeply interested in the natives, their customs, and habits. But in a few weeks, all these things had lost their attractions and I was longing for our shady elms and maples, and for people decently dressed and busy in doing something good for themselves or for somebody else.

I have seen the glaciers of the Swiss Alps, Alaska, and Norway, playthings compared with those of Greenland; hence my interest in these rivers of ice was reawakened when brought face to face with these almost constant features of the arctic Alps. But in the course of a few short weeks, they all looked alike to me and were passed by without giving them the attention their picturesque grandeur and beauty deserved. The same is true of icebergs, such a novel sight at first; but it does not take long for this sense of novelty to wear away. When we see them by the hundreds and thousands, day after day and week after week, we soon give them but a passing glance, as though we had lived among them since our childhood days.

It is a rare privilege to see the midnight sun. I saw him in all his glory from the summit of North Cape, Norway, but was delighted, yes, charmed, to see him again in another part of the world, much nearer the north pole, in a new frame and shining upon an arctic foreground. Night after night, I studied and admired the pictures he painted on land and sea, clouds, rocks, ice, and snow, exquisite arctic panoramas which enchant the soul. But the midnight sun has his detractions as well as attractions. He changes the regular order of daily affairs by transforming night into day. For more than a month we have been having

"The live-long day,"—*Shakespeare.*

A whole month of continuous daylight and sunshine is well calculated to unsettle the customary habits of a person coming from a part of the world in which the midnight sun never makes his appearance. The continuous daylight makes it almost impossible to distinguish between the time set aside for work and rest—and one finds it difficult to make out whether he is going to breakfast, dinner, or supper, and without the use of a printed timekeeper one is apt to lose track of the days of the week and the day set aside for rest. The midnight sun is a spur, a goad which is applied to man and beast to be about, wide-awake, at work. He chases away sleep; he hates sleep. He is laboring under the firm conviction that while he reigns in the arctic regions it is the time for work and not for sleep. He is determined that nature and man should rest and sleep during his long absence.

The Creator intended day for work; night for rest and sleep. In the arctic regions, a restful, natural sleep is out of the question as long as the midnight sun is the sole master of the firmament. Try and create an artificial night by excluding light and it remains daylight as far as sleep is concerned. Close your eyes and the light of the midnight sun penetrates the eyelids and will keep you awake.

Doctor Kane, the famous explorer, has this to say of the prolonged effects of the midnight sun:

"The perpetual light, garish and unfluctuating, disturbed me. I became gradually aware of an unknown excitant, a stimulus, acting constantly, like the diminutive of a cup of strong coffee. My sleep was curtailed and irregular; my meal hours trod upon each other's heels—and, but for stringent regulations of my own imposing, my routine would have been completely broken up."

I can now say, after having contemplated with admiration the midnight sun for a month by day and the greater part of the sunlit nights,

"I 'gin to be aweary of the sun."

and add, with a longing heart and earnest wish:

"Come, civil night,
Thou sober-smiled matron, all in black."
—*Shakespeare.*

I loved the midnight sun on my hunting trips because he set no limit to the time for return; but after my return, sometimes nearly at midnight, weary and in need of rest, he kept me awake, or, at least, would permit only short naps tinged with



SOUTHERN SHORE OF OMENAK FIORD

dreams of real or imaginary things. Last night, August 24th, we could have seen the midnight sun for the last time had the frosty, snow-laden clouds not hidden his parting glance.

Tonight, at midnight, there will be twilight for a brief space of time, while the horizon in the east and in the west, so near to each other at this time and in this latitude, will be effulgent with the rays of the setting and the rising sun. This twilight will soon grow into a welcome night as we journey southward, and we are as anxiously looking for the somber night as we were for the midnight sun on our upward trip. When it does come, we may expect what we have missed for a month:

"The timely dew of sleep."—*Milton.*

At midnight, the sky presented a beautiful sight, The darkness was sufficient to make it necessary to supply artificial light for the compass to enable the man at the steering gear to keep the ship in correct course. For the first time in weeks, the lamps in the dining room were lit. During the evening, the sun was hidden behind a bank of clouds in the north, stretching from east to west. In the center of this dark veil, at a point corresponding with the location of the sun, great transverse streaks, the color of new gold, decorated the sky; later, as the clouds moved lazily northward, their free margins became fringed with a border of gold, while in the east and west a rosy tint extended far beyond the margins of the clouds, familiar pictures in the sky, announcing the setting and rising of the sun. The remaining part

of the sky was painted a very pale blue, and only here and there partly obscured by fleecy, fleeting clouds sailing through the lower strata of the air.

At eleven o'clock, I saw the moon in the north-east in the form of a crescent of old gold. Two bright, sparkling stars accompanied the queen of the new-born night.

> "The stars hung bright above,
> Silent, as if they watch'd the sleeping earth."
> —*Carlyle.*

The somber, dark, gold-fringed bank of clouds that veiled the dying midnight sun, with the delicate pale blue sky in the foreground, the golden sickle of the moon, and the two stars accompanying her in the freshness and brilliancy of their youth, only partly obscured from time to time as the thin, transparent sheets of fugitive clouds raced over them, was a picture that only nature can paint, and only under extraordinary circumstances, when the three lights of heaven co-operate in harmony.

Early in the morning of Saturday, August 26th, we were again in sight of the stern, rugged coast of Greenland, after having crossed Melville Bay. The weather continues ideal for this latitude; a gentle breeze from the south just sufficient to impart to the "Erik" a soothing, rocking motion. If it were not for the chilly wind, overcoats would be superfluous. The foothills of the coast range of mountains appear here in the form of numerous small islands all along the coast.

ISOLATION OF THE SMITH SOUND ESKIMOS

We are now opposite Upernavik, until now the most northern of the Danish settlements, and hope to reach Godhavn tomorrow (Sunday) morning. As we come nearer these settlements, I appreciate, more and more, the isolation of the northern part of the west coast of Greenland, inhabited by the Smith Sound Eskimos. These people have only a very faint idea of the world beyond. The only information, out of reach of their vision and beyond their limited travel, has come to them through the ships of the explorers and an occasional whaler. I found only one Eskimo who had made a trip over land and ice as far as Upernavik, where he traded fur for a cheap muzzle-loading shot-gun, an undertaking of which he feels proud.

These Eskimos have lived here, undoubtedly, for centuries, before they were discovered by the explorers, completely isolated from the Eskimos of Southern Greenland and on the American continent. They know nothing about mail, printing-press, money, telegraph, or telephone, and their knowledge of things is confined to what they see and hear in their narrow sphere of life. And yet they consider themselves as *the* people, *Innuit*, and the whites as strangers, *Kablunah*. Attempts to tell them something of the men and things in the great world

beyond their vision have not always succeeded in convincing their simple minds of the truth of the statements. One man told them that in some of our great cities inhabited by millions of people, more than twenty-one igloos were built one on top of the other, and all of them occupied, making a great igloo as high as some of their mountains. Another one told them about talking over a wire thousands of miles and the speed of our railways. These stories were listened to with childish interest, but the men who told them lost their reputation for veracity forever among the Eskimos. Think of a country where there is nothing to read, to which there is no access, and from which there is no escape, except every year or two by a tramp whaler, or an occasional vessel of an explorer, and you will have some idea of the solitude and extent of isolation of the heart of the arctic region.

In calling at Godhavn on our return trip, we feel that we will soon be again in the outskirts of civilization, although we do not expect that a lighthouse will guide us in finding the harbor, or to hear from home, for even here the people must be content with three mails a year. What a sense of relief and satisfaction the arctic explorer must experience, when, after an absence of a year or two, he reaches this outpost of civilization.

Prolonged isolation in a remote part of the world, excluded from the influences of civilization and one of its greatest blessings—the press, is productive of mental starvation of which there is no better proof than the lives and habits of the Eskimos living

north of the Danish settlements. A prolonged stay in that severe climate, aggravated by the long winter nights, must have a depressing influence on the minds and bodies of the men who venture to go there in search of the pole. The mind of more than one man has been upset under these trying conditions of arctic life. Even the Eskimos, habituated to the climate and the conditions it creates, not infrequently become nervous and hysterical toward the end of winter, after having suffered in body and mind the baneful consequences of prolonged confinement, where

> "The night is long that never finds the day."
> —*Shakespeare.*



FIRST CLIFF BEYOND NORTH STAR BAY, BEHIND WHICH WE FOUND THE NATIVE VILLAGE OF LITTLE OMENAK

OMENAK FIORD

Omenak Fiord is one of the great fiords of the west coast of Greenland. It is a wide, almost bay-like, inland arm of the sea, eighty miles in length, and the center of a magnificent Alpine scenery. Near the head of the fiord is Omenak Island, the seat of an old Danish settlement of considerable importance. The coast north of Omenak Fiord is made up of a high, precipitous mountain mesa, with numerous little islands in the foreground. Some distance north of the fiord, the shore presents an entirely different aspect. The mainland, here, breaks up into high, sharp-peaked, snow and ice-clad mountains. Beyond the innumerable cones, wrapped in their draperies of silver, rises the great inland ice-cap. At five o'clock in the evening, when we neared Omenak Fiord, the sky was overcast, the great expanse of water to the west appeared dark and gloomy while the sun lit up the sea of ice and the countless mountains in the foreground. The reflection of the rays of the sun from the ice and snow made colors in gold, silver, and alabaster; and in many places the new ice glittered like diamonds.

We were here given a splendid opportunity to compare, once more, the water-clouds with the ice-blink. The clouds hovering over the open water were dark, almost black; those over the great inland ice almost white, with a slight tinge of brownish gray.

The north coast of Omenak Fiord resembles very much, in its configuration, the wild chaos of peaks and crags of the Swiss and Tyrolean Alps, viewed from a high point of observation. It presents a real Alpine scenery on a grand scale. In crossing the fiord, we were again among prodigious icebergs. Omenak Fiord is the most remarkable locality, in the production of icebergs, on the face of the globe. Doctor Kane has seen here floating mountains of ice 200 feet high; and if we estimate, as he did, that the submerged part of the berg is seven times greater than that above the water, we obtain a more definite idea of the immensity of these wandering fragments of the glaciers which reach this bay.

Next morning, Sunday, August 27th, we were sailing along the west coast of Disco Island. A cloudy sky and drizzling rain made it difficult to identify the landmarks of the coast, which serve as guides to the little harbor of Godhavn.



A MONSTER ICEBERG IN DISCO BAY

DISCO ISLAND

Disco is a large island in the bay of the same name. As Peary said of Saunder's Island, I can say of this one, it looks like "a Titan agate set in lapis lazuli." Its inland ice-cap, numerous small glaciers, deep fiords, precipitous, inland, snow-clad mountains, and the army of icebergs surrounding it, and reflecting a lazulite blue, make up a picture of exquisite beauty and majestic grandeur. For miles, the coast of this island, near Godhavn, appears like a bastion, rising almost perpendicularly from the sea to the height of 500 to 1,500 feet. This wall of basalt rock appears as though it had been constructed by the hand of man. It is composed of immense, regularly cut stones cemented together with a reddish mortar. Time and the elements have carved the face of the rock into most fantastic designs. Frost and thaw have softened the hard face, and the dribbling water, passing like tears over it, has washed away the debris and carried it to the base of the wall, where it has accumulated for ages and forms, almost at regular intervals, immense gray mounds, that look from a distance like ash-heaps from a furnace.

On the surface of the mesa, and especially in the valleys and on the shore, where a little soil has formed, a scanty growth of grass appears here and there in the form of pale green patches, which re-

lieve, somewhat, the severity of the otherwise bleak, dreary aspect of the landscape. Flocks of eider-ducks, gulls, and kittiwakes enliven the air and surface of the water. During the afternoon, the drizzling rain ceased, the gray clouds broke and dispersed, and, although the thermometer only registered 42½° F., the icy wind from the inland ice-cap made it necessary to make use of an overcoat when on deck.

HARBOR OF GODHAVN

The harbor of Godhavn is in an out-of-the-way place, and not an easy one to find. Following the coast at half speed, we discovered the first unmistakable landmark leading to it, a narrow, rocky, projecting strip of lowland with an immense erect boulder, painted red, at its head, and with a white Roman cross painted on its face on the side of the entrance into a small bay. As we entered this little bay, we saw a small schooner disappear to the right, presumably into the harbor. The steamer's whistle soon brought out a large row boat manned by half a dozen natives. The Eskimo pilot came on board, and, although he could not speak a word of English, skillfully directed the course of the ship.

At the head of the little bay a very narrow channel leads into the little harbor. The harbor is landlocked, separated from the ocean on the opposite side by a low narrow bar over which the waves leap into the harbor when the sea is high and the wind in the direction of the island from that side. The harbor is deep, but so small that it could not accommodate more than three or four ships of the size of the "Erik." It was evening when the anchor dropped near the middle of the harbor. On entering the harbor, we passed a number of kayaks. Their inmates, mostly boys and girls, were engaged in

fishing for cod, and later brought us the day's catch in exchange for crackers, pork, and other eatables.

Godhavn

I was very anxious to see Godhavn, after seeing and studying the Smith Sound Eskimos, in order to learn from my own observations the effects of civilization on the Eskimo race. Commander Peary very kindly granted my urgent request and ordered the captain of the "Erik" to put in at Godhavn on the return trip, provided the weather permitted him doing so without taking additional risks. He gave me, at the same time, a letter of introduction to the inspector of North Greenland. As it was late in the evening, and a drizzling rain again set in, we remained on board. We learned that the little schooner we had seen, before coming to the harbor, was a government vessel, just returned from a sail to Egedesminde, with Governor Mathiesen on board. The little craft was anchored near the "Erik," the only two vessels in the harbor.

Godhavn is located on a gneissoid spur, offsetting from the larger mass of Disco. The low tongue of land is strewn all over with immense boulders, with little shallow patches of soil in isolated places among the rocks. In the rear of the harbor, mountains, which were at this time in a garb of new snow, rise to the height of at least 2,000 feet. Near the talus of the highest mountain, and on the edge of the harbor, is a solid, one-story stone building which is the rendering establishment of the settlement and not in use at this season of the year. The

GODHAVN

village is located on the opposite side of the harbor. The houses of the inspector of North Greenland and the governor of Disco District are comfortable and substantial one-story frame buildings with high gable roofs. A miniature garden is attached to each of them. The huts of the natives are small frame buildings, and some of them are walled in, in part at least, with turf. There are no streets, the homes, some twenty in number, being scattered over a considerable surface. The entire population does not exceed eighty-five.

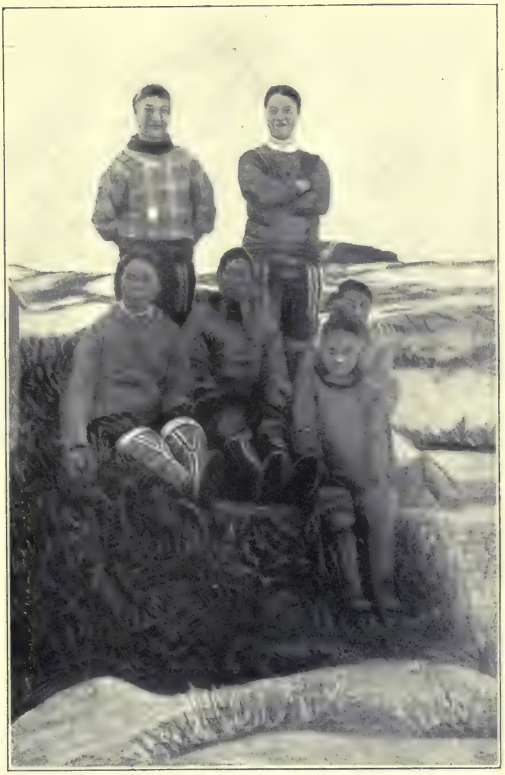
The inspector was absent, having returned to Denmark for the winter, as is his usual custom. The governor acted as his substitute during the winter, besides attending to his own duties as storekeeper for the district, which comprises Disco Island and some of the small inhabited islands in Disco Bay—three or four settlements in all. The Danish flag had been transferred from the flagstaff in front of the inspector's house to the one in front of the governor's house. The government buildings, besides the residences of the two officials, consist of store houses, rendering establishment, and brewery; the business places being the property of the Royal Greenland Company. The brewery is conducted by natives, and the beer brewed does not contain any alcohol, but is a refreshing, pleasant beverage and is sold to the Eskimos at eight *kroner* a keg. The sale of liquor in all of the settlements is prohibited by stringent laws, consequently the vice of drunkenness is unknown.

The day after our arrival, I called on the govern-

nor, and, in his company, visited the public buildings, brewery, schoolhouse, the little church, and a number of huts of the natives. These huts have retained some of the features of the igloo. The windows are few and small. The roofs are made of corrugated iron or slate. The doors are very narrow and low. The interior is generally divided into two compartments, one is the living and bedroom, the other, the kitchen and storehouse. The common family bed is a wooden platform, about two feet high, taking in the whole width of the room. The bedding consists of furs, mostly tanned sealskins, as bear and reindeer in this part of Greenland are very scarce.

Much of the animal food is cooked, which may account for occasional attacks of scurvy during the long winter months. This, however, always disappears in the spring when the natives can secure narwhal and white whale. The skin of these animals is eaten raw and, like the Eskimos of Smith Sound, is relished as a great delicacy. The houses are heated by stoves—turf being used as fuel.

One of the most striking effects of civilization on these people has been to make them respect and practise cleanliness. They are clean in person and in their houses. The men wear sealskin trousers, short boots of the same material, and jackets with hoods made either of sealskin, or, during the summer, of cloth. Underclothing of eider-duck skins or woven material is most generally worn. The women and girls are exceptionally well dressed. They wear hip boots of many bright colors, jupe, collars and hair bands of beadwork. They part their hair in



CIVILIZED ESKIMOS OF GODHAVN

the middle and tie it tastily in a knot over the back of the head.

There has been so much Danish blood infused into the Eskimo race here and elsewhere in the Danish settlements that they have lost most of the striking features of the aborigines. The malar prominences are less marked, diminishing the flatness of the face, which has become elongated. The skin has lost much of its swarthiness, and blue eyes and red hair are by no means uncommon. If most of these people were seen in Copenhagen, no one would mistrust their Eskimo origin, One can see here men with blond beards, fair skin, and blue eyes, who bear no resemblance whatever to the Eskimos of the far North, and yet for generations their ancestors have lived in Greenland. The women have abandoned their savage customs. They cannot ride the kayak, and no longer cure skins by chewing them. They are excellent seamstresses and use thread instead of the sinews of the narwhal.

In many respects civilization has bettered their condition. They are all Lutherans and regular churchgoers. The settlement has a neat, tiny church in which service is held every Sunday. A Danish missionary visits the settlement twice a year, and between his visits the school master, a native educated in Greenland, conducts the service by reciting a prayer, conducting the singing, and by reading a chapter from the Bible.

The little frame schoolhouse contains four small desks with as many equally rough, unfinished benches which afford scant space for the twenty-two little

children who receive their rudimentary education here. Higher education for the natives is provided for at Julianahaab, where missionaries conduct a seminary and where a small printing establishment is located. The books published in the Eskimo language are: Bible, Testament, catechism, song-book, primary reader, and a pamphlet on first aid. As there are only a very few educated physicians in Greenland, this pamphlet is a great help to the people living far away from medical aid. Mr. Gerhard Kleist, the schoolmaster, is one of the swarthiest of the Eskimos here. He is not only a good schoolmaster, but a skilled carpenter. His salary is 500 *kroner* ($135.00) a year, which is paid out of a fund of a missionary society. He is a man of middle age, the happy father of nine robust children, and is living in his little house that he built himself, near the schoolhouse. His three oldest daughters are charming girls, the belles of Godhavn. Accompanied by their father, they came on board in the evening to return our visit. They were dressed in their best and entertained us by singing sweetly one of their favorite church songs. The father took considerable pride in informing us that the short beaded capes they wore cost him a pound apiece. It appears from this that marriageable daughters make family expenses high, even among the Greenland Eskimos.

The "Erik" was the first foreign ship to enter this harbor within the last three years, and the new governor, Mr. O. J. F. Mathiesen, very recently appointed, was given the first opportunity to make

use of his official power in dealing with the outside world. He was born in Godhavn thirty-five years ago. His father and mother emigrated from Denmark to Greenland in 1870. He attended school for six years in Copenhagen. It was a source of great disappointment to me that he could speak neither German nor French, as his knowledge of English was so very limited that I experienced great difficulty in obtaining from him the desired information on many subjects, more especially on the effects, immediate and remote, of civilization on the Eskimos. The situation was made more painful by his labored efforts to comply with my request. He entertained us at his house, showed us through all government institutions, visited with us a number of the more prominent Eskimo families in the village, and we met everywhere with a most cordial reception. In the evening, before sailing, we entertained the governor on board, and on this occasion the murdering of the English language on one side, and of the Danish on the other, was something frightful. But the strenuous conversation was kept up until near midnight. He is a single man, but intends to go to Copenhagen next summer to claim his bride, who, he says, is willing to return with him to this out-of-the-way place.

The Eskimos of the Godhavn settlement are principally engaged in fishing and seal-hunting. Rock cod, halibut, and salmon are plentiful. In early spring, the seal migrate in large numbers to the shores of Disco Bay. Walrus is getting scarce in this locality, and last year only one polar bear

was killed. The reindeer have migrated farther north. Ptarmigan, arctic hare, and sea-fowl furnish sport for the shot gun. The Danish government has acted very wisely in supplying the natives with muzzle-loading guns of the same caliber. The pitiful cry for powder is not heard here, and accidents occur here less frequently than among the Smith Sound Eskimos, most of whom have breechloaders of different calibers.

The coast steamer "Fox" of the Royal Greenland Company, that we met in North Star Bay, calls here several times during the summer, brings supplies and takes away the skins and ivory which the natives exchange at the storehouse for the most necessary articles with which to supply their households. Tobacco, tea, biscuits, soap, thread, powder, lead, caps, cotton and woolen cloths are the articles most in demand.

Greenland has its own paper money, but no silver. The denominations of the paper money suit the local market, ranging from one *kroner* upward. The silver which circulates here is Danish coins. In making little purchases, the natives would accept neither American, Canadian, nor English silver. The governor came to our aid and gave us Danish for American money.

Greenland has no postage stamps. The letters go to Copenhagen, where the Danish stamps are affixed and canceled. The local mail is carried on kayaks in the summer and dog sledges in the winter. The prohibition of the sale of intoxicating liquors, by the government, the education of the children in



CHURCH AT GODHAVN

missionary schools, and the Christianization of the people by the Lutheran church have borne excellent fruit, the evidences of which can be so plainly seen in Godhavn. On the other hand, civilization has also brought its bad influences. The alterations in dress and diet, the living in small, heated huts summer and winter, in the same place year after year, could not fail in slowly undermining the vigor and health of the people.

Godhavn is in need of a dentist. Its inhabitants, in consequence of modernizing their manner of living and eating, have lost the splendid teeth of the real Eskimo. The real Eskimo has teeth as perfect as his dogs, exempt from malformation and disease, and only subject to a gradual wearing away from use. The only case of toothache and swollen cheek I saw among the Eskimos was at Godhavn. Irregularity of teeth, caries, or loss of teeth, never seen among the real Eskimos, are seen as frequently in Godhavn as in any of our communities. The wearing of hats and caps, instead of the loose hood, has proved here, as elsewhere, a menace to the vigorous growth of hair which ornaments the scalp of every Eskimo, as I saw among the limited number of adults at least three persons, two men and one woman, bald, and all of these were blonds and had blue eyes, the most degenerate kinds of Eskimos. Then, too, the taste of civilization brings ever-increasing desires and longings for something new; and attempts to gratify them, a corresponding increase of family expenses and additional cares, to say nothing of the chagrin and disappointments

if they cannot be satisfied. The fewer the needs, the greater the contentment; while the craving for something difficult to acquire, or entirely out of reach, is the mother of worry and discontent. And we must not forget:

> "Pleasure blinds, so to say, the eyes of the mind, and has no fellowship with virtue."—*Cicero.*

and

> "Happiness and misery are the sources of the two extremes, the utmost bounds whereof we know not."—*Locke.*

We can say, in brief, that civilization has had a salutary effect on the mental status and morals of the Eskimos on the one hand, while, on the other, it has resulted in a deplorable physical degeneration and a vastly increased receptivity to disease. Godhavn is a good place to purchase little souvenirs, which the natives make, such as toy kayaks, dog sledges, purses and slippers of seal skin, etc.

GREENLAND PORTS

Denmark guards the ports of entrance of this possession with scrupulous care for the purpose of holding the monopoly of trade and as a precaution against the introduction of contagious and infectious diseases. I here give a few extracts from the regulations which govern the entrance of foreign vessels into any of the ports of Greenland, a copy of which is given to the master of every ship entering a port:

THE BOARD OF THE ROYAL GREENLAND COMPANY MAKE KNOWN:

1

By treaties made between the Royal Danish Government and the United States of America, Great Britain, and other states, it is recognized that the Danish colonies, with all coasts and islands belonging thereto, on the west coast of Greenland, which colonies presently extend from 60° to 74° 30′ north latitude, are closed to navigation to foreign vessels (as well as to Danish vessels) unless special permission has been obtained from the Danish Government holding the monopoly of trade in Greenland.

2

According to Danish law, any vessel sailing on the west coast of Greenland without leave, shall be liable to be seized, wherever met with, and the vessel and cargo to be forfeited.

Similar punishment may be applied when any person is found trading with Greenlanders or Danish colonists from any vessel lying in any port of Greenland, or off the said coast.

3

Any shipmaster, compelled by shipwreck or other similar cause to seek refuge in any port of Greenland, shall only remain in port so long as is absolutely necessary, and shall obey any order given him by the local authorities. * * *

4

Watering without special leave shall only take place at the colony of Holstenborg, Upernavik, and the settlement of Godhavn, and in all cases a bill of health must be presented to the local authorities either by the shipmaster or the ship surgeon. If there be any contagious disease on board any vessel, the Greenland authorities shall take all necessary measures to prevent the disease from spreading among the native population, and may order the vessel to proceed to another watering-place. The shipmaster shall at once obey all orders given him by the said authorities. In order to avoid the spreading of any disease, it shall be prohibited to dispose of or sell any used wearing apparel, used bedclothes, and similar things, to the native population of Greenland or to the Danish colonists.

5

The prohibition against navigating on the west coast of Greenland and the monopoly of trade purport to protect the native population of Greenland, which will be threatened with ruin in case contagious diseases should spread among them, or in case it should be permitted to import alcoholic drinks or other similar goods.

The regulations in the present form came into force March, 1905.

These wise and timely precautions to protect the natives against outside diseases have been very effective. As far as I could learn, pulmonary tuberculosis, so common in Denmark, has not as yet gained a foothold here. There is no case, at least at present, in Godhavn, and I saw no indications of glandular, bone, or joint tuberculosis. Three years ago all of the natives and colonists living on the west coast were vaccinated. A year ago typhoid fever broke out in one of the colonies. It proved very fatal to the Danes, while all the natives recovered. Venereal diseases are not as prevalent here as among the real Eskimos, and appear to pursue a comparatively mild course. I saw no indications of rickets, either in the adults, children, or infants. Scurvy makes its appearance occasionally toward the latter part of winter, but yields promptly to the spring diet of fresh meat, especially the raw skin of the white whale and narwhal.

By government regulation permanent residence is reserved, exclusively, for Danish subjects. The two races appear to be congenial to each other, and instead of the natives becoming Danes, the Danes imitate them in their manner of living, and in a short time become Eskimos. No efforts are made to deprive the Eskimos of their language, and it remains the language of the island. Denmark has done much toward the civilization of the Eskimos and in lifting them to a higher plane in life without resorting to any harsh means, and without

interfering too much with their local affairs. She has played rather the part of a loving mother than of a stern father. The missionaries are entitled to much praise for their untiring labors in bettering the spiritual life of these docile, gentle people.

In this latitude, the midnight sun shines from the middle of May to the middle of August. Four months out of the year, the sun is out of sight. According to Governor Mathiesen, the coldest weather prevails during the month of March. It is during the long winter that the people, in consequence of the absence of sunshine, the long confinement in the small huts, and especially the lack of fresh meat, become anemic and nervous, and sometimes scorbutic. With the appearance of sunlight, outdoor exercise, and ample supply of fresh seal, walrus, and whale meat they recuperate rapidly from the effects of the winter's hardships. They are in the best physical condition when the winter overtakes them again, resembling very much, in this respect the hibernating animals.

Wherever a little soil has accumulated between rocks in and about Godhavn, grass grows six to eight inches high, and flowers bloom. Lettuce, radishes, cucumbers, and some other short-lived vegetables could be cultivated successfully, but the natives have an inborn repugnance against such garden products. What they ask for most, when a ship comes into port, is pork, coffee, sugar, tobacco, and underwear. In their intercourse with strangers they are friendly, polite, and obliging.

FROM GODHAVN TO ST. JOHNS, NEWFOUNDLAND

Sunday evening, after anchoring in the harbor of Godhavn, a pouring rain set in which continued, with but few slight intermissions, for twenty-four hours. The male population made use of kayaks and two rowboats plying between the ship and the shore. Females are prohibited by law to come on board of a vessel in port. The three grown-up daughters, accompanied by their father, the schoolmaster, were the only female visitors on board the "Erik;" and this privilege was, undoubtedly, accorded them by the governor as a mark of special favor to the most prominent and influential native of the settlement. I shall always remember my visit to Godhavn with pleasure, as it was replete with interest and gave me, at least, a glimpse of the life of the Eskimos who have lived under Danish rule for more than two hundred years.

It is the intention of the Danish government to extend its jurisdiction over the entire west coast, which will then include the last remnant of the real Eskimos now living at and north of Cape York. The government has in contemplation, as previously stated, the establishment of two additional permanent settlements, one at North Star Bay, and the other near Etah, which, if carried out, will bring the entire native population of Greenland under the protection of the Danish flag.

After supplying our tanks with fresh water, we left Godhavn at noon, Tuesday, August 29th. The natives were arranged in groups along the shore, and the governor stood in front of his house; all eyes following the ship as it passed out of the channel and disappeared from their sight behind the rocky shore of the peninsula on which Godhavn is located. When the Eskimo pilot and his crew left the ship, we parted for good with these interesting people.

A stiff breeze from the north, during the forenoon, swept away the fog and rain clouds and a bright sunshine cheered the billowy sea. The air and surface of the water teemed with eider-ducks, kittiwakes, and ivory gulls. Numerous icebergs were resplendent in the sunshine. Most of these monsters are the product of the Jacobshavn Glacier at the head of Disco Bay. The sun retired at 7:30 P. M., in the form of a great disc of gold. Just before the rim of this golden disc touched the edge of the water, a narrow strip of a cloud obscured the upper margin, and the effect of reflection, from this partial hiding of the sun, produced on the upper margin of the cloud an image of the sun, about half the size of the sun itself, giving the appearance of two suns of unequal size, almost in touch with each other.

Most of the icebergs we encountered were mere wrecks; many of them had lost their balance and were leaning over to one side, others were completely turned over and were lying on their backs. The saddest spectacles were presented by those, which, in their youth, had represented in outline a ship under full sail, but now were wrecks with stern or

stem high in the air and the opposite end deeply under water. The swaying and rocking movements of these shapeless masses of ice, in the restless sea, reminded one, vividly, of a wreck at sea. After leaving Disco Bay, one of the most productive birthplaces of icebergs in the world, these, up to now, almost constant reminders of the arctic region, disappeared completely from the surface of the ocean, not leaving even a sign of their former existence in the form of wreckage.

Eclipse of the Sun

An eclipse of the sun had been announced for the 29th of August. The coast of Labrador was to be the place where this event was to be seen to the best advantage. For more than four weeks the sun was for us the center of attraction, as he had been our constant companion. We were anxious to see him, for once, shut out from sight by a lesser luminary body. We thought of Milton's reference to such a rare occurrence:

> "As when the sun, new risen,
> Looks through the horizontal, misty air,
> Shorn of his beams; or from behind the moon,
> In dim eclipse, disastrous torchlight sheds
> On half the nation."

However, we seemed to be in the wrong place to see the eclipse. We were constantly on the lookout, and it certainly did not take place on the day predicted. The next morning it was cloudy. At 8:30 A. M., the captain said he could see a blurring of a part of the disc of the sun, then visible behind

a thin veil of clouds. When I came on the deck, I thought I could see a shadow in the lower left quadrant of the sun; and, if this was an eclipse, it was a very incomplete one.

On leaving Disco Bay, the course of the vessel was set for the coast of Labrador, a little north of Battle Harbor, and we soon lost sight of Greenland. This part of the voyage was devoid of special interest. Davis Strait, which had to be crossed, has not a good reputation among sailors. It is a restless, quarrelsome body of water, more especially so during the month of September. On leaving Disco Bay, we were out of sight of icebergs for the first time, for any length of time, since we left the Strait of Belle Isle on our upward trip.

The first two days out, a strong breeze from the north rendered material assistance in increasing the speed of the vessel. When we reached about the middle of Davis Strait, very high and long swells from the opposite direction announced the rear end of a storm. The little "Erik" now demonstrated what she could do in the way of pitching. The violent heaving of the ocean made her stand on her heels and then plunge forward into a great abyss, dipping her sharp nose deep into the next wave, which, in turn, lifted her into an almost standing position. As the wind shifted toward the west, the monotonous rocking movements were modified into a motion resembling the tortuous windings of a screw, a combination of pitching and rolling so trying to sensitive stomachs. Before we reached the Labrador coast, the wind was again in our favor,

and contributed much toward hastening our homeward journey and in calming the sea.

The little auk, that intrepid, hardy bird of the arctics, we left behind some fifty miles out from Greenland, but the faithful escort of several kinds of gulls followed us from coast to coast. We had now reached a latitude where the sun sets early enough to give place to a long, peaceful night, in the shadows of which body and mind find the necessary rest. Sunrise and sunset now lent a charm to the beginning and close of the day. After a long dawn, announcing the approach of a new day, with eyes fixed on the eastern horizon, we could say with Thomson:

> "But yonder comes the powerful king of day,
> Rejoicing in the east."

and in the evening, looking in the opposite direction:

> "The downward sun
> Looks out effulgent from amid the flash
> Of broken clouds."

And after the fading away of the gentle twilight into the somber solitude of restful night:

> "In her starry shade
> Of dim and solitary loneliness,
> I learn the language of another world."—*Byron.*

What a relief it is to get away from the constant glitter of the midnight sun, and to return to a latitude where night invites sleep and repose! Who else, but the Almighty Architect of the universe, could have created the lights of heaven and regulated their course in such a way as to make an equal divi-

sion of time into night and day, rest and labor, where the great mass of people of this world live and toil?

> "It would be labor lost to him, at present, that this mighty frame of the world could not be maintained without some governor, and that this regular course of the stars is not directed by chance."—*Seneca.*

The early dawn brings hope and vigor to the toiling masses, and, with the waning day, the soft twilight, with its soothing influence, prepares the way for a restful, peaceful sleep.

The Sun as a Painter

Sunrise and sunset at sea, when the clouds do not veil, too deeply, the face of the rising and setting king of day, are hours eagerly looked forward to, as it is, then, that the sky, broken clouds, and the surface of the sea are decorated in colors and hues that have never been and never will be reproduced to anything like perfection with the brush of the most famous artists. The pictures the sun paints are unlike those we see in our most famous collections of art. The former are living, moving, ever changing pictures; the latter are dead, fixed immovably on canvas by rude paints, lacking all the delicate hues which impart such characteristic charms to the former. A sunset or sunrise on canvas is the same, day after day and night after night. The pictures in the orient and occident, painted by the sun, are never the same. In these pictures, in the sky or on the sea, the background and the fore-

ground, the tapestry, are continually changing and the stiff, cold, crude colors of the canvas are lacking.

It has always seemed strange to me that so many people, who take an interest in art and who make claim to a knowledge of art, take more pleasure in visiting art galleries than in studying and admiring nature's immaculate and perfect works of art. Whoever has made a careful study of sunset and sunrise at sea will not lose much time in the art galleries, examining the rude pictures made to imitate such glorious scenes, no matter how famous the name of the artist on the canvas may be. Who can reproduce on stiff canvas the golden, silvery, rosy tints of the curtain of clouds, or the delicate shadows of fleeting clouds on the rippling mirror of the sea? Nature is the only real art gallery, and she exhibits her marvelous pictures and panoramas in the open air, free to all. Keep out of the dingy, dusty halls, called art galleries, hung with pictures that require a legend to know what they are intended to represent, and commune in the open air with nature and study her inimitable works of art.

Aurora Borealis

The midnight sun excluded the possibility for us to see the aurora borealis in the arctic region. This strange phenomenon of the sky makes its grandest display in the arctics during the long winter night.

Nansen describes one of these exhibitions which he witnessed during midwinter in 83° north latitude: "Presently the aurora borealis shakes over the vault of heaven its veil of glittering silver—changing

now to yellow, now to green, now to red. It spreads, it contracts again, in restless change; next, it breaks into many folded waving bands of shining silver, over which short billows of glittering rays float, and then the glory vanishes. Presently, it shimmers in tongues of flame over the very zenith, and then again it shoots a bright ray right up from the horizon, until the whole melts away in moonlight; and it is as though one heard the sigh of a separating spirit. Here and there are left a few, waving streamers of light, vague as a foreboding—they are the dust from the aurora's glittering cloak. But now it is grown again; new lightnings shoot up, and the endless game begins afresh. And all the time this utter stillness, impassive as the symphony of infinitude."

All arctic explorers have been charmed by this magnificent vision which must, at least to a considerable extent, have relieved the monotony of the long polar night. It is, in this part of the world, a real fourth light of heaven, synchronous, and in perfect harmony with the gentle light of moon and stars. The aurora borealis is intimately associated with the electro-magnetic system of the earth, both as to its origin and visibility; although the causes and conditions of its intermittent actions are not yet fully understood. Some claim that the display is occasionally attended by an audible swishing sound. Captain Frazer, of the S. S. "Bonaventura," informed me that he frequently heard such a sound during the height of the phenomenon in his cruises along the coast of Newfoundland.

The common optical effect is the long, low arch

spanning the sky, of gray, green, purple, or red colors; somewhat brightening into the most magnificent display of transient tints, suffusing the whole heavens. Toward the end of the display, long streamers receding from the observer seem to unite in a glorious crown, or halo, called the corona. Moistness of the atmosphere, cold, low barometric pressure, and the neighborhood of large bodies of water intensify the luminous manifestations. The arctics present all of these conditions and are, therefore, the localities in which the aurora makes the most magnificent displays. The aurora, which only occasionally is seen in our latitude, is but the shadow of what is to be seen in the polar regions.

The dreary coast of Labrador is favored by this mysterious light, and for the last three nights I have watched and studied these transitory arches, veils, sheets, and streamers of shimmering silver. The first display made its appearance Thursday evening, August 31st, at 9:30 P. M., simultaneous with the new moon and the first starlit night. The finest displays have been observed between ten o'clock in the evening and midnight. The sky has been propitious for these exhibitions. The golden crescent of the new moon

> "The queen of night
> Shines fair with all her virgin stars."—*Otway.*

and

> "Now had Aurora displayed her mantle over the blushing skies, and dark night withdrawn her sable veil."—*Cervantes.*

Imagine yourself on the deck of a steamer, far

away from land, the delicate blue of the sky as a background, the new moon, the heavens rejoicing

> "In the galaxy, that milky way
> Which nightly, as a circling zone, thou see'st
> Powdered with stars."—*Milton.*

and between the fleeting clouds and these myriads of flickering tapers, the fourth light of heaven, the aurora, in her favorite silver array and ever varying multitudinous forms and you will be in a favorable mood to join in the song of the Psalmist:

> "The heavens declare the glory of God; and the firmament showeth his handiwork."
>
> —*Psalm XIX, 1.*

AURORA BOREALIS

Mysterious light of arctic skies,
Shining from where fierce Boreas sighs;
In glittering beams of silver hue
And trembling flames of gold, red, and blue,
Shine long and bright with all thy might,
O'er land and sea in polar night.

Fourth light of heav'n in arctic zone,
Where biting winds and ice forever moan;
Congenial friend of moon and stars
With gloomy darkness keep up your wars;
Shine long and bright with all thy might,
O'er land and sea in polar night.

Soft, gentle light, we can not explain
What you are, and what may be your aim
In sending forth your unsteady flame,
Sparkling with gold and silver in the main;
Shine long and bright with all thy might,
O'er snow and ice in polar night.

The Labrador coast was sighted toward evening, Sunday, September 3d, about a hundred miles north of Battle Harbor. A beautiful, real Labrador sunset awaited us. Behind broken clouds, the sun appeared, from time to time, in all his northern splendor; and, when temporarily veiled, fringed the transient clouds with gold; while high above the horizon, the dark clouds were painted in purple, gradually, almost imperceptibly, shading into somber black. As the great ball of fire approached its ocean-bed, and its lower rim touched the summits of the bleak coast range of mountains in the distance, the dazzling rays vanished and left the sun a great disc of gold, which disappeared, inch by inch, behind the ill-defined horizon. With the disappearance of the last speck of gold, the coloration of the sky and clouds was blotted out so suddenly that, when the eyes lost sight of the retiring sun, a pale sky and black, somber clouds formed the background of the new-born twilight, which slowly yielded to the darkness of the coming night.

The next evening, again out of sight of land, the new moon made a wonderful and, to me, a novel display. About nine o'clock, the crescent of gold approached, in measured steps, the western horizon, only recently cleared of clouds for the reception of the queen of the night, traveling over a trackless, pale-blue surface. The moon appeared to me brighter than I had ever seen her before in that part of the sky. The display of the aurora borealis in the north then engaged my attention. When I looked westward again, the crescent had disap-

peared. In its place I saw, on a level with the horizon, what looked to me like a mound of flameless, mouldering fire. If we had been in sight of the coast, I would have regarded it as such. There were no flames or anything that resembled flames. This burning mound, almost the color of blood, became lower and lower, and in a few minutes vanished entirely, leaving the horizon black, without even a tinge of coloration. This strange image in the sky was the result of a very limited reflection of the moon, already hidden underneath the horizon in a hazy atmosphere, a picture rarely developed under similar conditions.

The voyage along the coasts of Labrador and Newfoundland was a very pleasant one, as it was attended by ideal weather, favorable wind, sunshine, and, occasionally, the passage overhead of a drizzling cloud. The temperature gradually climbed up to 59° F. The much feared fog along the coast of Newfoundland was, for once, absent. The air was unusually dry and bracing. Monday night, we passed a coast steamer and a sailing vessel, the first ships seen since we left Belle Isle Strait, with the exception of the "Roosevelt" and the little Danish steamer, "Fox," and the small sailing vessel in the harbor of Godhavn. Soon after leaving the Labrador coast, we lost sight of the icebergs which, however, caused no regrets. For nearly two months these colossal fragments of the many glaciers in the far North, water, sky, clouds, and the bleak coast of Greenland were constantly before our eyes; and it was a relief when the green, low coast range of

mountains of Newfoundland came in sight. The green meadows in the valleys and the tree-clad cliffs were a pleasing sight and a welcome change from the more stern aspects of the heart of the arctics. The trees were small and dwarfed by the fierce gales of many a winter; but they were trees, and reminded us that we were on the sunny side of the Arctic Circle.

The narrow entrance of the landlocked, beautiful harbor of St. Johns was passed at six o'clock in the evening, Tuesday, September 5th, and half an hour later the "Erik" was at anchor in her own home. We found in the harbor six English men-of-war. All merchant vessels were decorated, and the little capital city was in gala attire. These demonstrations proved to be in honor of Prince Louis of Battenburg, the Rear-Admiral, on board his flag ship, the "Drake," at the head of his squadron in the harbor. St. Johns is a stirring city of 25,000 inhabitants. The wealth of Newfoundland consists mainly of its cod and seal-fisheries, and the prosperity of the city depends largely on the handling of these products of the sea. The presence of the English squadron marked a great event in the daily affairs of the people of St. Johns. The governor entertained the prince and the captains of the vessels, and the next evening the prince returned the courtesies extended to him and his officers by giving the governor and the most prominent government officials a banquet on board of his flag ship. The great battleship was brilliantly illuminated with hundreds of electric lights strung in two rows on the sides of the vessel over all the four funnels, the

very top of every mast, and along every spar. Another vessel, the second in size, was similarly decorated. From the remaining ships of the squadron, the flashes of light from reflectors were thrown continuously in all directions. This display was kept up until midnight, when, with the twinkle of an eye, by a given signal, the flickering lights and the flash lights were extinguished, leaving the great fighting machines of the sea like specters in the darkness of the night.

FROM ST. JOHNS TO SYDNEY, CAPE BRETON

I took passage on the "Bonavista" that evening, and from the deck of the steamer witnessed the magnificent illumination of the harbor. The steamer left the harbor at two o'clock, next morning, Thursday. About thirty first-class passengers were on board. As soon as the ship left the entrance of the harbor they were aroused from their sleep by the violent pitching and rolling of the vessel, which reminded them that they were on the open sea, made angry by the dreaded September gales. The unsteady gait of the ship became more and more so as we neared Cape Race, a neighborhood which has a bad reputation among sailors, more especially about the time of the equinox. The "Bonavista" had a smooth path coming, a very rough one on the return trip.

A dense fog and a drizzling rain added to the disagreeableness of the voyage. Experience in the past gave me the impression that the English people suffer less from seasickness than any other nationality. I was anxious to learn to what extent the Newfoundlanders could make claim to such immunity from the terrors of the sea, as most of them are of English extraction. On this occasion, their reputation as sailors fell short of my expectations. I was the only one at the breakfast table, and the pale steward who waited on me ought to have been in bed. The stewardess had done so, and remained insensible to the calls for help made by the female

passengers. The violent ringing of the cabin-bells, the moaning and groaning and the periodic distressing sounds which accompany the act of vomiting proved, only too clearly, that the inmates of all cabins were in distress. Two or three pale, haggard faces made their appearance at the table next meal; but the tempting dishes had no attraction for them. After taking a few sips of coffee, they disappeared again. It was only after the ship entered the quiet waters of the Sydney harbor that the passengers recuperated from the effects of the unusually rough voyage.

I love the sea and all its charms; but after having lived on board the "Erik" for nearly two months, I was glad to make a change at Sydney, from steamer to the well-equipped train of the Intercolonial Railway, and finish my tour by this more speedy means of travel. After a most pleasant and instructive vacation of more than two months, most of the time having been spent in the very heart of the arctics, I reached Chicago, Tuesday, September 11th, mentally and physically rested, eager to resume my work. Travel has made me familiar with nearly all climates in the world; it has afforded me an opportunity to see and study many primitive races, their habits, and customs. It has brought me in touch with Nature's choicest works of art, her wonderful resources, under varying climatic conditions, all of which has convinced me: that in all inhabitable parts of the globe nature has wisely provided for man and beast, and has painted everywhere the most exquisite works of art and more especially in the land of ice and snow—Greenland.

PLEASE DO NOT REMOVE
CARDS OR SLIPS FROM THIS POCKET

UNIVERSITY OF TORONTO LIBRARY

G
606
S4

Senn, Nicholas
In the heart of the Arctics